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RADON CONTAMINATION: HOW FEDERAL AGENCIES DEAL WITH IT

HEARING

BEFORE THE

SUBCOMMITTEE ON
SUPERFUND AND ENVIRONMENTAL OVERSIGHT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

TO REVIEW A REPORT FROM THE GENERAL ACCOUNTING OFFICE ON HOW FEDERAL AGENCIES DEAL WITH RADON CONTAMINATION

MAY 18, 1988

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RADON CONTAMINATION: HOW FEDERAL AGENCIES DEAL WITH IT

WEDNESDAY, MAY 18, 1988

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON SUPERFUND AND
ENVIRONMENTAL OVERSIGHT,
Washington, DC.

The Subcommittee met, pursuant to notice, at 9:38 a.m., in room 406, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman of the subcommittee) presiding.

Present: Senators Lautenberg and Warner.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. The meeting of the Subcommittee on Superfund and Environmental Oversight will come to order.

I would like to welcome my distinguished colleague, Senator Warner from Virginia, who is the ranking member on this subcommittee.

This is the subcommittee's second hearing on the subject of radon contamination. Last year, together with the Environmental Protection Subcommittee, we looked at State efforts to address radon contamination.

Today, the subcommittee is going to focus on what Federal agencies are doing or, more accurately, not doing about radon despite the fact that unsafe radon levels threaten over 10 million homes in America, despite the fact that radon causes as many as 20,000 lung cancer deaths a year, second only as a threat to cigarette smoking.

Last year at an Appropriations hearing with HUD Secretary Pierce, I asked what HUD was doing. I was told that HUD was developing a radon policy related specifically to HUD assistance programs. I was told that HUD was working with EPA on radon as required by the 1986 Superfund amendments known as SARA.

Thereafter, I asked GAO to review HUD's progress, and, one year later, what GAO has to say is disturbing, to say the least. In the face of a nationwide environmental hazard in housing, the Nation's top housing agency is sitting on its hands. The GAO concluded that HUD doesn't have a national policy and isn't working on one, and HUD hasn't done anything to implement its responsibilities under the Superfund amendments to work with EPA to address the radon problem.

But it is even worse. According to GAO, HUD is proposing to unload seven houses it owns with elevated radon levels as is because mitigating the radon would establish an unacceptable precedent. HUD is doing nothing to mitigate elevated radon levels in houses it owns on an Indian reservation in New York State. HUD has a statutory mandate to produce housing of sound standards of livability, but HUD just makes excuses for inaction.

Meanwhile, other Federal agencies, fortunately, are moving forward. GAO found that EPA is making progress in developing its radon program. The National Park Service is moving aggressively to test and mitigate its buildings. It is ironic that the Park Service is doing more to assure radon safe housing for its workers in the mountains and the forests of our country than the Federal housing agencies are doing for millions of Americans who reside in federally assisted housing in towns and cities across the country.

Well, it is unacceptable, and I intend to do all I can to force HUD and the other Federal housing agencies to face up to the radon problem and to start developing some answers.

At today's hearing, the subcommittee will review the GAO's findings. We are going to explore HUD's excuses for failing to develop and implement a radon policy, and we will identify possible legislative initiatives.

We are particularly fortunate that representatives of the housing industry and consumer groups are here to provide us with their expert advice. I hope that HUD will use this hearing as an opportunity to change its view and become a player in the Federal radon effort.

At this point, I would like to call on my distinguished colleague from the State of Virginia, Senator Warner, for his opening statement.

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Senator WARNER. Thank you, Mr. Chairman.

I join others in congratulating you for the initiatives you have taken in this area.

I have with me this morning copies of books put out by the EPA. One is "Radon Reduction Methods: A Homeowner's Guide." The second is "A Citizen's Guide to Radon." These are very helpful booklets for people to get a grasp of this rather complicated and new problem which is life threatening, as the chairman pointed out.

I am pleased with the efforts to increase public awareness that have been made in my own State, primarily in Fairfax County. The county has, with the assistance of the U.S. Geological Survey, complied a detailed map of radon producing soil that demonstrates that no area of the county is immune from potential hazards caused by radon gas.

A number of public hearings are being conducted by Fairfax County, and I would urge residents to attend these meetings to learn more about their particular areas.

One emerging fact is welcome as recent information on correcting radon problems once identified. EPA reports that there are var-

ious methods that are reasonably affordable to reduce high levels in homes, and it is contained in these booklets and elsewhere.

I will ask unanimous consent that the balance of my statement be included in the record so that we can proceed with the hearing.

Senator LAUTENBERG. Without objection, so ordered.

[The prepared statement of Senator Warner follows:]

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Mr. Chairman, I continue to be concerned about the risk to public health from high concentrations of radon gas on our population.

As has been previously stated, the U.S. Environmental Protection Agency estimates that between 5,000 to 20,000 lung cancer deaths a year in the United States may be attributed to radon.

As a gas, radon is mobile and can get indoors in a number of ways. It can seep into a house through floors, cracks in concrete floors and other openings in the foundation or walls.

Because there are many different ways for this harmful gas to enter homes and buildings, a greater level of education by all of us is needed to address a potentially dangerous situation.

Recent efforts to increase public awareness in Fairfax County are to be commended.

The County has, with the assistance of the U.S. Geological Survey, compiled a detailed map of radon-producing soil that demonstrates that no area of the county is immune from potential hazards caused by radon gas.

A number of public briefings are being conducted by Fairfax County and I would urge residents to attend these meetings to learn more about your particular area.

One emerging fact that is welcomed is recent information on correcting radon problems once identified. EPA reports that there are various methods that are reasonably affordable to reduce high levels of radon in homes.

Todays hearing is principally focused on the role of federal housing agencies in addressing radon and the need for additional legislation. Again I compliment Senator Lautenberg for having todays hearing and also for having GAO complete a report on the efforts to reduce radon contamination in housing by the Department of Housing and Urban Development, the Farmers Home Administration, the National Park Service, and the Veterans Administration.

I have read the GAO report and want to highlight the following points:

First, I compliment the efforts of the National Park Service which has tested their housing units, and administrative buildings for radon gas and is planning to perform corrective actions where needed. They have adopted not only the can-do attitude but have taken the next important step—"doing it".

Second, I urge EPA to move swiftly in completing their national radon survey which will provide the Nation and Congress with needed information on geological factors which will be used as indicators of radon severity.

Third, Federal housing agencies should made every effort to work with EPA in developing an appropriate protection policy. I am very disappointed that, based upon GAO's findings, that the Nation's major Federal housing agencies who finance and insure millions of homes, do not have adequate policies to protect homebuyers. It appears that a far more positive attitude needs to be adopted by these federal housing agencies in recognizing their roles and responsibilities to protect people from radon gas.

It also is appropriate for Congress to consider providing the federal housing agencies with additional direction that support a more positive role in addressing radon. Presented in the GAO report are several constructive ideas ranging from providing mortgage insurance applicants with general radon information booklets to incorporating and evaluating the effectiveness of radon mitigation techniques in new construction that appear to be reasonable and worthwhile to incorporate into effective policies and procedures.

Senator LAUTENBERG. Thank you very much, Senator Warner.

I would like now to call our first panel to the table. We have Mr. John Luke of the General Accounting Office and his associates.

Will you please introduce your colleagues?

STATEMENT OF JOHN LUKE, ASSOCIATE DIRECTOR, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY FRANK SUBALUSKY AND YVONNE PUFAHL

Mr. LUKE. Thank you, Mr. Chairman.

Before I get started, I would like to identify Mr. Frank Subalusky to my right and Ms. Yvonne Pufahl to my left who were the principals in the conduct of our work on radon with respect to HUD, VA, Farmers Home Administration, the National Park Service, and EPA.

Senator LAUTENBERG. Mr. Luke, I would ask you and all the witnesses to try as much as possible to summarize your statement. We are interested in everything that you have to say and, of course, the record will reflect your full statement, but we invite you, if possible, to summarize as much as possible.

Mr. LUKE. I will certainly try to honor that request, Mr. Chairman. Again, we appreciate the opportunity to discuss the results of our radon work which we performed at your request.

As a result of your concern about the efforts of federal agencies to deal with radon contamination in housing, we described the status of the Environmental Protection Agency's radon detection and mitigation efforts; identified actions taken in response to potential radon hazards by the Department of Housing and Urban Development, the Farmers Home Administration, the Veterans' Administration, and the National Park Service; and studied the federal government's potential liability for indoor radon hazards in federally insured or assisted housing.

In summary, we found that the extent of federal activity varied considerably by agency. At EPA there are a number of efforts underway to identify and correct radon problems. However, HUD, FmHA, and the VA, which finance and insure civilian housing, have radon activities that range from responding to a few site-specific problems to not being involved with radon issues at all. Only the National Park Service, which provides housing to some of its employees, has a radon program or policy in place. In addition, the courts have not addressed the Federal Government's liability for radon in housing when it acts as a seller, insurer, or landlord.

What factors account for the general inaction by federal housing agencies to develop radon programs or policies? HUD, Farmers Home, and VA officials told us that the overall absence of a specific legislative mandate for an agency radon program is a primary reason. They also pointed to the uncertainty over the extent of the radon problem and the lack of a Federal radon standard as reasons for their limited activity. While EPA does not intend to develop a radon standard, the agency has developed radon guidelines and is working on identifying high risk areas.

Specifically, EPA has a number of efforts underway, such as a planned national radon assessment, providing assistance to States to identify high risk areas, and also a data consolidation effort that is planned in terms of collecting data from private entities to consolidate and run analyses to enhance its information base.

However, being more specific with HUD, as the lead federal housing agency, it has not delineated a specific policy or course of

action it will take in response to emerging radon issues. Instead, HUD has responded to radon hazards in a limited, piecemeal manner.

For instance, HUD provides radon disclosure notices to prospective applicants of HUD-insured mortgages in three areas where radon problems were found prior to 1980. It does not provide disclosure notices to mortgage applicants in other areas where high radon levels have been found. For example, radon disclosure notices are not used in Colorado or Kansas, even though EPA's State surveys found elevated radon levels in 39 percent of 900 houses tested in Colorado, and 21 percent of 1,000 houses tested in Kansas.

In another illustration of its piecemeal radon response, HUD authorized radon reduction techniques during the construction of a single HUD-assisted public housing project in Bethlehem, Pennsylvania. HUD may not authorize such action for other HUD-assisted construction projects because the agency has no requirement or policy that radon reduction techniques be incorporated in new construction projects it finances.

Although HUD and EPA share responsibility for radon research under the Superfund Reauthorization, the agencies have not yet defined their roles. Specifically, this legislation requires that EPA and HUD jointly conduct research on methods to assess the potential for radon contamination in new construction and design measures to avoid indoor air pollution. EPA has taken the lead role in responding to this requirement, and, although HUD recently funded a $40,000 research project, a definitive HUD role remains unclear.

If the Congress wishes HUD to assume a more active role in responding to radon, it may want to consider outlining HUD's expected indoor radon responsibilities. These responsibilities could include the following:

Providing prospective mortgage insurance applicants with general radon information through a disclosure notice;

Incorporating, and evaluating the effectiveness of, radon mitigation techniques in new construction financed by the department, at least on a pilot basis; and

Reporting to EPA on the effectiveness of any radon mitigation techniques used in HUD-assisted housing.

With respect to other agencies we reviewed—the Farmers Home Administration, the VA, and the National Park Service—there are marked differences in their response to potential radon problems. For instance, VA and Farmers Home officials said they are unaware of any radon problems in the housing their agencies finance or insure, and neither agency has a radon policy. However, Farmers Home is planning to develop an air pollution policy that will include radon.

In contrast, the National Park Service, which provides housing to some of its employees, has tested about 2,800 permanent housing units. It has also tested some of its administrative buildings and seasonal housing. As a result, the Park Service plans to perform mitigation work on approximately 350 buildings.

In conclusion, Mr. Chairman, federal agencies involved with housing have responded differently to the radon hazard problem. Consequently, the overall Federal housing response to the radon

problem has been fragmented and limited. To more effectively deal with the radon issue, the Congress may wish to consider broadly outlining expected indoor radon responsibilities for federal agencies involved with housing.

That concludes my prepared statement, Mr. Chairman. We would be glad to respond to any questions that you may have at this time.

Senator LAUTENBERG. Thank you very much, Mr. Luke. Again, let me say your full statement will be put into the record in its entirety.

I thank you very much. We thank GAO for a job well done and being so responsive.

Mr. Luke, HUD disagreed with a number of your findings, and I would like to review their position and hear your comments. First, HUD argues that GAO's recommendation that HUD and EPA define their respective responsibilities and planned actions to implement title IV of SARA fails to take into account HUD actions to meet this requirement.

In your opinion, has HUD complied with its mandate under SARA to join with EPA in conducting radon research?

Mr. LUKE. Mr. Chairman, based on our work and our discussions with the officials at HUD as well as those at EPA, it is our sense that, clearly, EPA has taken the lead role with respect to the SARA requirements in dealing with the radon issue. We see no evidence of HUD taking positive action to engage in serious negotiations with the EPA to move forward on the radon issue.

Senator LAUTENBERG. Would HUD's involvement in the national radon research program help to speed up EPA's efforts to address the radon problem?

Mr. LUKE. We certainly think HUD as the lead housing agency has a role with respect to dealing with the radon issue. It has housing expertise, and with that expertise, it should be used in reconciling problems with respect to radon, and the serious problem that radon poses to many Americans in this country.

Senator LAUTENBERG. HUD says that it has an official radon policy of providing assistance at the request of State and local governments on a case by case basis. In your opinion, is this an appropriate policy, or do you maintain that HUD has addressed the problem in a limited piecemeal fashion?

Mr. LUKE. We did notice that HUD has responded to the radon issue, but that has been, again, as we indicated in our testimony as well as our report, fairly isolated to specific problems in different parts of the country, such as in Florida, Montana, and South Dakota. Otherwise, we haven't seen anything published by HUD that would respond to the problem in a national context.

Senator LAUTENBERG. So, it is sporadic, at best.

Mr. LUKE. Right.

Senator LAUTENBERG. Mr. Barnes of EPA is going to testify that the Federal housing agencies can play an important role as models for the private sector in the adoption of radon assessment, mitigation, and prevention strategies. Do you agree with Mr. Barnes—that that is the place that we can see demonstrations of kinds of construction and planning that would be helpful to the private sector?

Mr. LUKE. Again, unequivocally so, Mr. Chairman. EPA has the technical expertise to deal with the problem, and HUD has the housing experience. It seems logical if we are going to address this problem that we put those two pieces together to move forward on this issue.

Senator LAUTENBERG. In your view, has HUD developed any policy that will serve as the model that we discussed?

Mr. LUKE. Again, Mr. Chairman—Ms. Pufahl and Mr. Subalusky may wish to contribute here as well—but as we reviewed HUD and its activities in terms of physical documents delineating procedures and policies to be used in the implementation of radon in housing activities either on the assistance side or the insurance side, I don't think we found any.

Ms. PUFAHL. There is no overall HUD radon policy, and when HUD has responded in a few limited instances, that was generally many years ago. There hasn't been much new activity on HUD's part with one exception. Recently, they funded a $40,000 research project.

Mr. SUBALUSKY. Also, in addition, as John Luke mentioned, in Bethlehem, Pennsylvania, they have agreed that they are going to do some work during construction to see what could be done to preclude maybe some larger problems after construction.

Senator LAUTENBERG. That is a fairly small attempt to deal with this problem. It is like throwing a glass of water on a forest fire. It is just too little and, obviously, fairly late in the scheme of things. Is that not so?

Mr. LUKE. Yes.

Ms. PUFAHL. It is fairly late in the scheme of things, yes.

Senator LAUTENBERG. And very little in terms of really making a difference, in terms of demonstrating that the government is serious about dealing with a very threatening health matter.

HUD says there isn't the legislative history to support the assertion of GAO that HUD has legal authority to take a leadership role in dealing with radon. How do you respond to that?

Mr. LUKE. What we found, Mr. Chairman, in terms of doing legislative research on this project, there seems to be only one piece of legislation that specifically addresses HUD's role with respect to the radon issue. However, HUD under existing legislation has a responsibility of providing decent, safe, and sanitary housing.

One could certainly argue that radon certainly falls in the category of decent, safe, and sanitary housing.

Senator LAUTENBERG. By way of example, are there any specific mention of things that would not fall under the category of decent, safe, livable conditions?

Mr. LUKE. To the best of my knowledge, I haven't seen an inventory listing exceptions that are not under the rubric of decent, safe, and sanitary housing, no.

Senator LAUTENBERG. How about those things? Do they specifically point to things that ought to be eliminated or put on a list of things to be concerned about in the definition of safe and livable housing?

Mr. LUKE. I have been informed by counsel that although the statute does not provide such a list, the courts in some areas are interpreting the intent. For instance, in terms of eradication of rat

infestation or dangers in electrical wire exposure, the courts have required those kinds of things be repaired. So, in those kinds of cases, the courts are reacting and interpreting the statute.

Senator LAUTENBERG. Would you, based on the information you have developed, think that radon is something to be as concerned about as faulty wiring, rat infestations, those kinds of things in terms of threats to the health of the occupants?

Mr. LUKE. Mr. Chairman, as you have indicated, between 5,000 and 20,000 deaths a year are attributed to radon in housing. It is a serious problem, but the courts have not intervened to date or we haven't seen litigation with respect to the issue of radon and the delineation of what the Federal role ought to be. Unless we have some specific legislation on the books it may be one issue that has to be dealt with through litigation.

Senator LAUTENBERG. You said, at least, that HUD has in your view the responsibility to take a role going back to the definition originally—I guess the year was 1949—of the kind of housing that HUD was to either provide or to be involved with. That definition is generally considered safe and livable. Is that correct?

Mr. LUKE. That is correct.

Senator LAUTENBERG. HUD says that GAO ignored the assistance that HUD provides to local officials on radon. In your view of the HUD radon program, do you find that HUD provided extensive assistance to State and local governments?

Mr. LUKE. There may have been one State instance. Yvonne, would you like to explain?

Ms. PUFAHL. HUD has not provided much guidance. As a matter of fact, we point out in our report that two of their own regional offices asked for policy guidance, and there really wasn't much forthcoming.

Senator LAUTENBERG. In your testimony, you indicate that HUD does not provide disclosure notices to mortgage applicants in areas where there have been high radon levels discovered. Do you think a disclosure policy would be useful?

Mr. LUKE. Well, in three areas right now, they are employing the use of disclosure notices. Those are areas where they have had some early experience in terms of being notified of high radon levels. I don't see how one distinguishes between those and other areas of the country where we know there to be high radon levels. I would say yes.

Senator LAUTENBERG. I want to thank you, Mr. Luke, and your colleagues for your testimony. I wonder if you can stay with us a while in the audience in case we have a question.

Mr. LUKE. Sure, Mr. Chairman.

Senator LAUTENBERG. Thank you very much, all of you.

Mr. LUKE. Thank you.

Senator LAUTENBERG. Now, we would ask Mr. James Barnes, Deputy Administrator of EPA; Jack Stokvis, Assistant Secretary for Community Planning and Development at HUD; and Mr. Robert G. Stanton, Associate Director for Operations from the National Park Service to come forward.

Good morning. We welcome you to this hearing. I would ask Mr. Barnes to present his testimony first. Again, to all of you, we know that you have fairly extensive statements to submit, and we would

ask you to summarize those statements if you can, and the record will reflect the full statement.

Welcome, Mr. Barnes. You are the first witness.

STATEMENT OF A. JAMES BARNES, DEPUTY ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

Mr. BARNES. Thank you very much, Mr. Chairman.

We are pleased to be here today to discuss with you the GAO report on the Federal response to radon. As you have suggested, we will simply submit our testimony for the record since it is fairly detailed and just briefly highlight from our perspective our responses either to the GAO recommendations or to the questions which you posed in your letter of invitation to us.

As you indicated in your statement earlier, EPA does believe that Federal housing agencies have an important role to play in this area as models and leaders for the private sector and, particularly, as to establishing radon assessment, mitigation, and prevention as well as public information programs.

With respect to the GAO report, they recommend that HUD and the Administrator define their respective responsibilities. We think that this could be beneficial. We found that a useful tool with other Federal agencies, and we would look forward to working with HUD on future efforts in this area. I think, as was indicated earlier, that they could make a contribution to our knowledge of radon contamination and mitigation.

Second, GAO recommended that the Administrator consolidate and analyze the private firms' test results on indoor radon. Again, we believe that is desirable. It is something we have embarked on. We are collecting that information. In terms of compiling it into an overall data base, we are doing that as resources are available and have put aside some funds this year to do that.

The third recommendation is that we and the Secretary of Interior amend our interagency agreement so that we get the benefit of their data on mitigation. I would point out we are now getting that information from them even though it is not specifically covered in the agreement. In fact, we are very pleased with the relationship we have there. So, we see no problem achieving that objective.

You asked several questions with respect to this hearing in terms of whether EPA, one, would seek the authority to establish a Federal radon standard. As we have discussed previously before this committee, we think, given the nature of the problem, given that radon is naturally occurring, the limits of technology, particularly with respect to old construction, we don't see that as a route that we are likely to either recommend or embark on in the near future.

Your second question asked whether we think that has hindered our radon effort. We think not. In fact, we are fairly pleased with the amount of activity that has been generated in a fairly short period of time by not only the Federal Government but by States like your home State of New Jersey that have moved fairly aggressively to deal with the issue and with efforts we have seen in other States and the private sector as well.

I think the third and fourth questions that you posed with respect to what research we were doing with HUD is covered in the testimony. We did work early on with HUD as we developed the two citizens' guides that Senator Warner referred to, and we have had some discussions with HUD about providing technical assistance with respect to specific problems they have faced.

We have also done some work with the Veterans' Administration and the Bureau of Indian Affairs.

Question five gets into what efforts Federal housing agencies might undertake. We would be pleased to discuss that in our give and take with you over and above the general statement I made about the role they might play.

The sixth question asks what efforts other Federal agencies, particularly the Department of Defense and the USGS have undertaken to assist EPA. Here we have a number of, I think, very positive things to report. The Department of Defense has worked closely with us. They do have a radon assessment and mitigation policy. All three services as well as the Coast Guard have radon programs in place. We are working with them on both diagnostic and mitigation training as they are working on the facilities they have.

The USGS has also worked very closely with us. As Senator Warner indicated, they have worked with some of the local areas to develop maps. They have been very helpful in trying to help identify geologic factors and characteristics that would be useful predictors of radon problem areas.

DOE's efforts are is something that you and I have discussed before in earlier hearings. We have an MOU with them that splits our research responsibilities, with them focusing on basic health and with EPA focusing more on applied research and operational programs, but DOE has also been very helpful in terms of problem assessment and mitigation.

The Park Service, as was referenced in Mr. Luke's testimony, has an IAG with EPA and, I think, a very aggressive radon gas detection and mitigation program. I would give them high marks for the way they have stepped out on the issue.

EPA has worked with the Indian Health Service to conduct radon survey of Indian lands in Minnesota, Wisconsin, and Michigan, and in New York, we are working with the Seneca Indian Nation and the Indian Health Service on that as well as doing some mitigation and diagnostic work.

EPA is also working with GSA which is helping us in developing protocols for testing in work places.

You asked about the status of the national assessment. There are several aspects of that as far as we are concerned. We reported last summer on the results of work with ten States. In a couple of months, we will be reporting on seven additional States. Ten States are doing work on their own, and we anticipate working with an additional eight or ten States next year as well as being into the operational phase of our own national survey.

So, I think, Mr. Chairman, that would conclude my summary here. We look forward to continued and expanded cooperation with these and other Federal agencies. I think working together can indeed have an impact on this very serious problem that we have before us.

Thank you.

Senator LAUTENBERG. Thank you very much, Mr. Barnes.

Mr. Stokvis, welcome.

STATEMENT OF JACK R. STOKVIS, ASSISTANT SECRETARY FOR COMMUNITY PLANNING AND DEVELOPMENT, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, ACCOMPANIED BY JIM MILLER, OFFICE OF ENVIRONMENTAL AFFAIRS

Mr. STOKVIS. On behalf of Secretary Pierce, I would like to take this opportunity to thank Senator Lautenberg and other members of the committee for giving the Department the opportunity to appear before this committee to address the findings of the GAO report.

Before I begin the testimony, though, I would like to note for the record that HUD received copies of the GAO report only about one month ago and that we are legally provided with a 60-day period to thoroughly review the report and provide complete written comments.

Because the report deals so heavily with HUD, whereas I am prepared to address the issues now, I want to state for the record that we will provide a complete, official, and thorough response by the June 6, 1988 deadline.

The Department disagrees with the overall GAO finding and some of the statements made throughout the report. Most importantly, there are serious errors of omission and fact throughout the document. I will attempt here to briefly identify our preliminary findings and discuss each of the four major areas with which the Department disagrees.

First, the major recommendation of the GAO was that "the Secretary of HUD and the Administrator of EPA define their respective responsibilities and planned actions in response to their shared legislative mandate."

The GAO recommendation fails to take into account the actions already taken and completed by both HUD and EPA in meeting the requirements of Title IV of the Superfund Amendment and Reauthorization Act of 1986, commonly referred to as SARA. The Superfund legislation clearly gives EPA, as already stated, the responsibility for establishing an advisory committee, developing an implementation plan, coordinating with HUD in conducting research, reporting to Congress, and providing funding authorizations.

HUD believes that EPA has done much to meet the requirements of title IV. HUD has been part of an on-going committee, cochaired by EPA and DOE, called the Interagency Committee on Indoor Air Quality, CIAQ, which has developed a plan of action for conducting and coordinating research on radon among all the Federal agencies with responsibility for this issue. The plan, published by EPA in March of 1988, is entitled "Current Federal Indoor Air Quality Activities."

In addition to coordinating its radon related activities through the CIAQ, HUD is a member of the Committee on Interagency Radiation Research and Policy Coordination, CIRRPC, under the direction of the President's Office of Science and Technology. For

this fiscal year, 1988, HUD is providing $40,000 in CPD salaries and expense funds to support the committee activities.

In addition to these formal coordination mechanisms, HUD and EPA staff regularly communicate to ensure an effective and non-duplicative delivery of available program technical assistance and research funding. Most recently, HUD contributed an additional $40,000 in research funds from its Office of Policy Development and Research to support a project in conjunction with the National Bureau of Standards. The project will examine methods that can be used to determine potential for radon at specific building sites, and work is presently underway.

I would also like to assure you that in providing on-site TA services to States and local officials requesting such assistance, we carefully coordinate our activities with the EPA.

Second, the report by GAO faults the Department for not adopting an official radon policy.

Our response is that HUD has an official radon policy that can be traced back to at least 1979. The Department policy is to provide assistance on radon matters at the request of State or local government officials.

The assistance HUD provides is determined on a case-by-case basis and tailored to meet the specific needs of the situation. Given the nature of the radon phenomenon, HUD believes that the flexibility—and this is key—represents the best policy for meeting the needs of locally requested assistance.

Broadly mandated programs or actions do not necessarily mean an effective or efficient response. HUD has prided itself on providing quality service to its customers, States and local governments, whether that service is responding to questions for which definitive answers can be provided or to questions on issues such as radon or lead based paint for which we are still seeking complete answers—and I will mention what we are doing on lead based paint as another environmental issue shortly.

Given the available information, HUD's current radon policy gives us flexibility. We believe this makes us unique among Federal agencies and is something which we at HUD are proud of.

Third, the GAO faults the Department for not having developed an official policy for the disposition of houses with elevated radon levels.

To respond to this, the Department has been requested to provide assistance and has identified either specific houses with elevated levels of radon or areas where there are known elevated radon levels. In these cases, the Department has a policy of informing potential buyers of the radon condition and its potential effects in a public disclosure notice. We do that in the areas where there are known radon hazards such as in Florida and Montana.

Fourth, the GAO report argues that HUD's failure to respond to actual radon hazards found in HUD assisted housing might expose HUD to liability as has happened where other conditions were found to be hazardous in public housing.

The Department is always concerned about liability risks to its FHA insurance fund just as it is with any other program. To date, case law dealing with structural and other deficiencies does not support the GAO assumption of undue risk to the Department.

Rather, HUD believes that it is potentially placing itself at greater risk if it adopted a Federal agency-wide standard for radon without adequate scientific underpinnings to make it supportable against legal action.

These four actions summarize our major findings and responses to the GAO report.

However, I would like to now turn——

Senator LAUTENBERG. I would ask you to summarize, Mr. Stokvis. I have your text in front of me, and we have to try to——

Mr. STOKVIS. Okay. I would like to summarize the two major issues which the GAO did not address and which it omitted.

First, the GAO report asserts that HUD has the legal authority to take leadership role in dealing with issues on radon. Also, on page 38, it admits that this whole question of the legal authority for HUD is something for which, other than SARA, there is no key mandate on the Department, and that is, I think, very clear in the GAO report.

We have requested within HUD an opinion from our general counsel which will be included in our final submission in response to the GAO report which is due on June 6.

The other major area which I think the GAO fails to take into consideration is the significant assistance that HUD provides to local officials in attempts to learn more about how to deal with the radon issues. I will submit for the record detailed specifics on all those cases where we have been asked to respond and also to share with the committee some of the various brochures which, through our field organization, we have been making available for communities to deal with this problem.

So, I want to thank you, Senator, for allowing HUD to participate in this discussion and say that, just like other major environmental concerns which the Department is dealing with such as lead based paint, we will work with this committee to effectively deal with the question of radon.

Thank you.

Senator LAUTENBERG. Thank you very much, Mr. Stokvis.

Now, I would ask Mr. Robert G. Stanton, the Associate Director for Operations of the National Park Service, to give his testimony.

Welcome, Mr. Stanton.

STATEMENT OF ROBERT G. STANTON, ASSOCIATE DIRECTOR FOR OPERATIONS, NATIONAL PARK SERVICE, ACCOMPANIED BY JOSEPH SCHOCK, U.S. PUBLIC HEALTH SERVICE

Mr. STANTON. Thank you very much, Mr. Chairman.

Mr. Chairman, I really appreciate the opportunity to provide your subcommittee with information on the National Park Service's efforts to deal with radon hazards.

I am equally pleased that I am accompanied by Joseph Schock who is the chief U.S. Public Health Officer assigned to the National Park Service. His home agency, of course, is the Center for Disease Control of the U.S. Public Health Service.

I might add, Mr. Chairman, that the National Park Service has enjoyed since the 1950's an excellent relationship with the U.S. Public Health Service pursuant to a cooperative agreement, and

that agency provides services not only in public health relative to radon but also in food as well as potable water systems.

Mr. Chairman, as you suggested, we will submit for the record a detailed report on the National Park Service's radon program, but, briefly, let me add for the benefit of this hearing that the National Park Service is moving aggressively to protect its employees against radon hazard.

The National Park Service administers some 5,000 housing units for its employees of which roughly 2,800 are for our permanent employees and 2,200 for seasonal employees. We initiated our radon detection program in January 1987. We have developed a testing strategy for housing and administrative buildings and guidelines for needed mitigation work.

In 1987, we entered into a cooperative agreement with the Environmental Protection Agency under which EPA provides technical support. This support, Mr. Chairman, includes radon detectors, field inspections, and training in mitigation measures. We have really enjoyed a fine relationship with EPA under that cooperative agreement.

Our program is progressing successfully. Currently, we have verified that 358 buildings require mitigation. Of these, 25 are administrative and maintenance buildings, and 333 are housing units. Additional housing units, particularly for our seasonal employees, will be tested this summer.

We are also engaged in training National Park Service personnel for radon diagnostic measurement procedures and mitigation methods, and we are giving this our very highest priority. Emphasis has been given to staff located in parks with buildings requiring mitigation. More than 100 park employees have been trained by radon experts, including courses held in Glacier, Yellowstone, Denali, Sequoia-Kings Canyon, and Valley Forge National Parks.

This capability on the part of our employees should be sufficient to handle the most difficult problems. Assistance, however, will continue to be obtained from EPA and expert contractors for the more difficult problems that we are experiencing in our housing units throughout the National Park System.

In the current fiscal year, we anticipate obligating something in the neighborhood of $500,000 for radon detection and mitigation. These dollars will be used for training and consultation by expert contractors; to fund the assistance acquired from EPA and the Department of Energy for laboratory testing, monitoring, and technical assistance; and we will also be purchasing specialized radon-analyzing equipment.

The distribution of these funds was based on the U.S. Public Health's premise that buildings with the highest levels of radon should be mitigated first. The amount of funds available will be sufficient to mitigate 112 buildings having representative radon values in excess of 10 pCi/l.

In the coming fiscal year—fiscal year 1989—we intend to use additional dollars to further our mitigation of housing throughout the National Park System.

The GAO report, Mr. Chairman, as you well know, refers to the need for the National Park Service to expand our interagency agreement with EPA to provide information on the effectiveness of

radon techniques that we are currently using. This will be done, and we will continue to work with EPA to draw upon their expertise in this area. As I pointed out earlier, we have received outstanding support from the Department of Energy and EPA.

Finally, Mr. Chairman, criteria are being included in our policy directives requiring new buildings to be constructed in parks throughout the park system to be, to the extent possible, radon-proofed where necessary.

This concludes my brief summary of the National Park Service efforts to proceed aggressively in mitigating radon in employee housing units throughout the National Park System. The National Park Service has determined in many years past that the welfare and the public health of our employees are paramount in the day-to-day operations of its various facilities and programs.

Thank you again for this opportunity, Mr. Chairman.

Senator LAUTENBERG. Thank you very much, Mr. Stanton. It looks like the Park Service considers this a serious problem and wants to do whatever it can to protect the inhabitants of these buildings.

Unfortunately, I don't get the same feeling that HUD is as concerned about the health of the residents of buildings that they are either directly responsible for or indirectly as a result of their insurance programs.

I want to examine the reasons cited in the GAO report for HUD's failure to adopt a radon policy. First, I want to examine the argument that there is no Federal radon standard.

Mr. Barnes, does the Administration support adoption of a Federal radon standard?

Mr. BARNES. No, Mr. Chairman, we do not.

Senator LAUTENBERG. Has the lack of a Federal radon standard impeded your efforts to address radon in any way?

Mr. BARNES. No, Mr. Chairman, in our judgment, it has not. Our action level was developed in consultation with the public health community and other Federal agencies, and then worked in conjunction with what citizens were asking us for, what kind of counsel they wanted from us. I think it has been an effective trigger for action on both government and the private sector.

Senator LAUTENBERG. To be clear, Mr. Stanton, how can the National Park Service address the radon problem without a Federal radon standard? I don't want this to sound too ridiculous, but the fact is that your agency didn't need a Federal radon standard to get on with its mitigation operations or its implementation, did it?

Mr. STANTON. It is true, Mr. Chairman, that in our efforts to mitigate radon in our housing units, we are not driven, if you will, by national standards or national policy.

Senator LAUTENBERG. What motivated it?

Mr. STANTON. The concern for our employees, and that will always be our guiding concern. It is my understanding, however, and maybe Mr. Schock will comment on it, that there is agreement, I believe, in the medical community that a certain level of radon would potentially cause health detriments to an employee or other individuals residing in such facilities. We have embraced that kind of concern and have moved aggressively to mitigate against that.

As I pointed out earlier, we do have employees in many of the units, and that is our primary concern, their welfare.

Senator LAUTENBERG. Mr. Schock?

Mr. SCHOCK. The 4 pCi/l target limit was established and is our guideline. It was developed both with EPA and the Center for Disease Control in collaboration, and that is what we use for our national standard.

Senator LAUTENBERG. So, you don't need a more rigid definition than that in order to feel that you have to do something to protect the well being of the inhabitants of those buildings, whether residential or occupational?

Mr. SCHOCK. That is correct.

Senator LAUTENBERG. Mr. Barnes, are other Federal agencies, State, local governments, and private citizens just holding their breath waiting for the adoption of a Federal radon standard?

Mr. BARNES. Mr. Chairman, we have alluded in our testimony to the actions of a number of the other Federal agencies. We have also had discussion before with this committee about what is going on in the private sector. I think there is a lot of activity going on both in the private sector and in State and local governments based on the use of an action level in conjunction with the knowledge that any exposure to radon carries with it some potential for damage to health. Viewed within the technological limits that we have, we ought to try to do as well as we can to protect people from radon risks.

Senator LAUTENBERG. So, just the 4 pCi/l bench mark is enough to trigger action, you think, on the part of EPA?

Mr. BARNES. As I said, that standard was developed in a meeting that I chaired with a lot of State people and representatives of CDC and so on which was kind of a consensus of the public health community in this country that at that point, you certainly should be concerned.

Now, certainly, there is some debate. There are some people who say you ought to be concerned about lower levels, and there are a few people who would say maybe you could go to higher levels.

But I would say the vast bulk of people would agree that at the level of 4pCi/1, you should be concerned about it and, we believe, the current technology in most cases allows you to do something to reduce the exposure of individuals below that level.

Senator LAUTENBERG. The three of you agree that there is a situation out there that should trigger an alarm that says we have to do something about people exposed to levels higher than 4 pCi/l. They have to try to get away from having to endure living or working in that condition. Is that fair to say?

Mr. BARNES. Right.

Senator LAUTENBERG. Mr. Stokvis, the Administration, as we clearly identified here, opposes the adoption of a Federal radon standard. Yet other Federal agencies, State, local governments, citizens across the country are proceeding to address the radon problem without a Federal standard.

What is HUD's problem?

Mr. STOKVIS. Well, Senator, as you know, one of the key tenets of this Administration and its new federalism is to work with the States and local governments which are closest to the problem to

help them develop strategies and plans to address the issue. As I submitted for the record and will also go into here, if you wish, we have worked with States and localities to help them address the issue.

I want to point out that HUD's role is quite different from that of the National Park Service, because we provide mortgage insurance to 100 percent privately built single family homes. In fact, the Federal Government through HUD, VA, and to a much lesser degree, Farmers Home, insures less than 20 percent of the housing, that means 80 percent or, in some cases, 85 percent of all mortgage insurance is done privately without a Federal Government guaranty.

We are a small player in the mortgage insurance business and totally unlike the National Park Service which owns and operates housing for its own employees. The situation is quite different.

We are concerned about the issue and are working with local governments to help them address the issue.

Senator LAUTENBERG. Don't you think there is any responsibility? You identify yourself as a small player. There are others who would disagree with that definition.

The fact is that your department has really sunk its teeth into this thing. They have provided two grants of $40,000 apiece, one to its share of the committee responsibilities on indoor air quality, and the other $40,000 was directed toward research on radon.

How many man-years did $40,000 buy?

Mr. STOKVIS. Well, we have done more than just that. I could provide for the record how many man-years that would provide, but we also——

Senator LAUTENBERG. $40,000 in this day and age?

Mr. STOKVIS. Or $80,000, but we also have a $200,000 proposal that we are working on right now through our Office of Policy Development and Research and several others. In addition, in the past, we have used extensive manpower and dollars to address the issue of the phosphate lands, the uranium lands, and, as we also mentioned, for some particular projects like one in Bethlehem, Pennsylvania in setting up mitigation policies there.

So, it is more than just those $80,000, and we are still pursuing other cases where local governments have come to us to help rectify situations, including a proposal to work with areas of the Reading Prong which includes, of course, parts of the State of New Jersey.

Senator LAUTENBERG. Getting back to the Federal radon standard, it is clear to me that that is not a valid reason for inaction or for slow action on the part of HUD. You have heard other agencies express their alarm and express their interest in dealing with the problem while HUD waits for a different definition.

It is discouraging, I think, because HUD's involvement is hardly that of a small player.

One of the reasons that you give for not addressing the problem more aggressively is that HUD lacks designated funding. Has HUD ever asked Congress for funding for radon activities?

Mr. STOKVIS. We have not specifically asked Congress for any funds. We have attempted to use our own limited funds to address the problem when it has been brought to our attention.

Senator LAUTENBERG. But you do say one of the reasons that you have not gotten more aggressive about it is lack of funding. So, either you ought to come and ask us for funds for it or stop using the excuse.

Mr. STOKVIS. Well, Senator, as the GAO report mentions and which I mentioned in my statement, one of the key questions is HUD's authority to deal with this whole question.

Senator LAUTENBERG. I thought we had just been through one of the questions that is raised in the radon standard, the authority question. That is one that you raise.

Let's assume for a moment that you don't have adequate authority. Does the Administration support giving HUD and other Federal housing agencies additional authority to address radon?

Mr. STOKVIS. To respond fully to that, I would have to await the final response prepared by the Department to the GAO Report by the June 6 deadline—and the legal opinion, of our General Counsel on the authority issue. Until I have that, I feel I cannot be——

Senator LAUTENBERG. Okay, we will keep the record open, because we are anxious to have your full response. You have had the report for 30 days. That sounds to me like a fair amount of time to get on with it, but if you insist on 60 days, we are going to keep this record open.

[The material referred to follows:]

HUD's Office of General Counsel on May 20, 1988 rendered a legal opinion concerning the Department's responsibilities regarding radon. The legal opinion confirmed the statement in the GAO Report as well as HUD's policy position that the Superfund legislation gave the lead responsibility for establishing a program with respect to radon gas and indoor air quality to the Environmental Protection Agency. The legal opinion stated that HUD's attorney's "know of no other statute which requires HUD to act with respect to radon, e.g., to establish standards or guidelines, perform research, require testing, abatement or disclosure, or otherwise "deal with" radon".

(Copy of General Counsel opinion provided)

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410

May 20, 1988

THE GENERAL COUNSEL

MEMORANDUM FOR: Jack R. Stokvis, General Deputy Assistant Secretary for Community Planning and Development, CD

FROM: E. Michael Dorsey

SUBJECT: HUD Authority for dealing with radon

This is in response to your memorandum of May 12, 1988 requesting our opinion concerning HUD's authority for dealing with radon.

We know of only one statute that mandates HUD action specifically with regard to radon: Section 403 of the Radon Gas and Indoor Air Quality Research Act of 1986 (Title IV of the Superfund Amendments and Reauthorization Act of 1986, or SARA, Pub. L. No. 99-499). Section 403 directs the Administrator of the Environmental Protection Agency (EPA) to establish a research program with respect to radon gas and indoor air quality and requires that the research program include:

> research, to be carried out in conjunction with the Secretary of Housing and Urban Development, for the purpose of developing --
>
> > (A) methods for assessing the potential for radon contamination of new construction, including (but not limited to) consideration of the moisture content of soil, porosity of soil, and radon content of soil; and
> >
> > (B) design measures to avoid indoor air pollution . . . [SARA, §403(b)(5)]

EPA appears to be the lead agency under this statute, since EPA is charged with the establishment of the overall research program as well as with providing Congress an implementation plan within 90 days of the enactment of SARA and a report as to EPA's research activities and recommendations by October 17, 1988.

We know of no other statute that requires HUD to act with respect to radon, e.g., to establish standards or guidelines, perform research, require testing, abatement or disclosure, or otherwise "deal with" radon. We note that the General Accounting Office, in a recent report to Senator Frank R. Lautenberg, reached the same conclusion ("[W]ith the exception of the SARA research requirement that HUD shares with EPA, we found no statute requiring specific HUD action on radon." Indoor Radon - Limited Federal Response to Reduce Contamination in Housing, GAO/RCED-88-103, B-223233, April 1988, page 38.)

Senator LAUTENBERG. The question that arises, it seems to me, is not whether you have the lack of authority. It is whether you have the interest or whether you want to take on additional authority.

We think that HUD has the authority. Under SARA, HUD is supposed to work with EPA in conducting research on identifying radon prone areas and in developing techniques to avoid radon in new homes. That is what it says.

Mr. Barnes says that he believes that HUD can make a significant contribution to our knowledge on radon contamination and mitigation technologies.

Mr. Barnes, do you have any examples of joint EPA-HUD efforts to conduct this research?

Mr. BARNES. Well, I think they have referred to a couple of the contributions they are making where we are working with them—one of them is where we are working together with the home builders on building codes. I am not familiar with the detail of their proposed contract on the National Bureau of Standards work, but that might be worthwhile.

When we talk about new construction and the potential to prevent problems in new homes that are built—again, we have had some exchange before where we have in excess of 1 million new homes being built each year in this country that it makes some sense to focus on that issue and what might be developed by way of model building codes and so on. I think we have had some discussion with HUD there, and at least as I understand it, some of their contribution to date is along that line.

We see them as a housing agency that may know a lot more about building homes than we do at EPA.

Senator LAUTENBERG. Are there any specific examples besides the couple of things that you mentioned that look like they are associations of specific joint EPA-HUD efforts? Because the National Park Service entered into an agreement with EPA to address the radon problem. Can you point to similar examples of the same thing taking place with HUD?

Mr. BARNES. We don't have a broad across the board agreement with them. Again, the reference was made by Mr. Luke to or at least maybe in the report to Bethlehem, Pennsylvania, where we are providing some technical assistance to HUD in conjunction with problems that appeared there in conjunction with the erection, I think, of multi-family housing, but it has been more on a project by project basis.

Senator LAUTENBERG. Would EPA like to see HUD put the same effort into radon mitigation or a radon alert effort that NPS and the Defense Department have exhibited?

Mr. BARNES. Well——

Senator LAUTENBERG. Well, you were complimentary to DOD.

Mr. BARNES. It is a big problem, and to the extent that I think we have people that have either some expertise to bring to the table or an opportunity to help us learn more about how you diagnose, mitigate, and prevent the problems, I think the better off we are. As I said, we have been very pleased about the way a number of Federal agencies have stepped forward, but I think recognizing that different people have different missions and resources and so on and interests and——

Senator LAUTENBERG. I don't want to place you in an indelicate position here where--the mission is not to criticize the other agency. The mission is to make sure that we are all talking the same language.

If radon is a problem—CDC says it is a problem. Other health agencies say it is a problem. There are physician associations that say it is a problem.

Since your agency, Mr. Barnes, is the one that has the most expertise for dealing with these environmental problems, we look to you, unfortunately, as the judge in some cases. Here you sit in the middle where one agency, not primarily concerned with housing, has been responsive. The other, primarily concerned with housing, has not been responsive.

This is not a personal attack on Mr. Stokvis, either. He is a good fellow from New Jersey, and we don't pick on people from New Jersey. I don't know how his welcome is back there when he goes home.

The question is whether or not you would like to see the same effort put forward by HUD as two agencies which, by your own statement, have done a pretty good job in addressing the problem. Is it fair to say that you, as a highly regarded professional, would like to see HUD at least get into the thing with some of the same vigor and same intensity as have these other agencies?

Mr. BARNES. Well, I think it is a big problem, and I think we can use all the help and expertise that people can bring to the table to help out on it.

Senator LAUTENBERG. Mr. Stokvis, before we leave this section, can you think of any examples of joint EPA-HUD efforts to conduct radon research?

Mr. STOKVIS. In the future? You are saying prospective?

Senator LAUTENBERG. Well, or concluded in the past.

Mr. STOKVIS. Well, I would like to submit for the record a whole listing of past specific activities.

Senator LAUTENBERG. Okay. You knew we were going to discuss this. It is not a surprise.

Mr. STOKVIS. Yes, and also to suggest some other ways that we might be able to deal with this issue.

Senator LAUTENBERG. These questions have been submitted, have they not? Or the general thrust? They all come from an examination of GAO's report, and I would have preferred it had you had more of that information available today, but, again, we will keep the record open.

[The information referred to follows:]

The following specific activities have been conducted by the Department at the request of State or local government officials seeking assistance on radon or radon related matters:

State of Florida - At the request of the State, the Department provided technical assistance to mitigate the effects of radon on reclaimed phosphate lands. The Department is providing a Public Disclosure Notice, used in conjunction with the sale of existing housing, which notifies potential buyers that the property is situated in reclaimed phosphate lands. In addition, HUD will not insure new construction on the reclaimed phosphate land.

Butte-Anaconda, Montana - The State Health Authority after identifying the Butte-Anaconda area as having elevated levels of radon, requested HUD technical assistance. In 1979, HUD and the Environmental Protection Agency (EPA) entered into a Memorandum of Understanding (MOU) under which HUD assistance in the area was made contingent upon the results of specific site testing for the presence of radon gas. HUD made available $65,000 in Secretary's Discretionary Technical Assistance Program funds for use to test houses related to the local Community Development Block Grant Program. In addition to providing the $65,000 in Secretary's Discretionary Technical Assistance Program funds in 1979 for testing of houses in the Butte-Anaconda area, the Department also provided a $65,000 research grant to the Montana Department of Health and Environmental Science. The research study was aimed at identifying remedial actions for reducing radon entry into existing structures. Approximately 1800 single family houses were tested under the MOU with EPA. The validity of the testing came into question when only two houses were found to have elevated radon levels.

In 1981 the Butte-Silver Bow Board of Health submitted a study to HUD, arguing that its results showed that the radon test should be eliminated as a requirement. After considerable review and analysis of the situation in the area by EPA, HUD agreed to stop the testing of individual properties. In place of testing the Department issues Public Disclosure Notices to all purchasers of existing housing who are seeking FHA insurance.

In 1982, HUD provided $250,000 in HUD Public Housing CIAP funds to the Butte Montana Housing Authority for remedial action on a 190 unit public housing complex.

Edgemont, South Dakota - The City of Edgemont had identified the area as radon prone and sought assistance in conducting radon testing of houses in the area. HUD conducted over 1800 tests and now provides Public Disclosure Notices to all potential purchasers. HUD is the only Federal agency requiring radon disclosure notices.

Bethlehem, Pennsylvania - At the request of the Bethlehem Public Housing Authority (PHA), HUD and EPA reviewed mitigation techniques proposed for use by the Bethlehem PHA in pre-construction activities for a 100 duplex, two story public housing building. The technical advice provided has been reviewed by the Housing Authority who will be implementing a staged program of mitigation. The first phase of mitigation measures on 35 units of the 100 unit project is expected to commence shortly.

Seneca Indian Nation in New York - HUD's Regional Office is working closely with the Indian Housing Authority and EPA to address radon problems on HUD owned housing on the Seneca Indian Reservations in New York. The Seneca Indian Housing Authority in conjunction with EPA, tested 100 homes for radon levels last winter. Of the homes tested, 15 were found to have elevated radon levels. HUD is currently meeting with EPA and the Director of the Indian Housing Authority to establish protocols for further testing and action. Discussions between HUD, EPA and the Indian Housing Authority are on-going.

Indian Health Service - HUD's Chicago Regional Office of Indian Programs has developed a Memorandum of Understanding with EPA and the Indian Health Service on testing and mitigation of radon on over 2000 homes on three Indian reservations: the Chippewa in Minnesota, Wisconsin and Michigan; Renominee in Wisconsin; and the Ojibawa in Minnesota and Michigan. In conjunction with the testing effort, training and information on radon has been provided to Tribal Councils, PHA staff and reservation residents.

HUD is in the process of working with EPA and Housing Authorities to extend the MOU throughout Regions I-IV, which are also under the jurisdiction of our Chicago Regional Office.

Research Support

In FY 1988, HUD, using $40,000 in Policy Development and Research funds has initiated a project with the National Bureau of Standards (NBS) to develop and test methods to determine the potential for radon at specific building sites. HUD has coordinated this research effort with EPA through the Interagency Committee on Indoor Air Quality (CIAQ). HUD's Office of Policy Development and Research is preparing a request for $200,000 in FY

6. Radon/Radon Progeny Measurement Proficiency Program, Cumulative Proficiency Report

7. Interim Indoor Radon and Radon Decay Products Measurement Protocols

8. Summary of State Radon Programs and Appendix

9. EPA Indoor Air Quality Implementation Plan, Appendix C: EPA Radon Program

10. EPA Radon Facts

11. EPA Environmental News: 10 State Radon Survey

Publications Issued By Committee on Interagency Radiation Research and Policy Coordination

1. Radon Protection and Health Effects

2. Report of the CIRRPC Policy Subpanel on Indoor Radon*

* Draft publication, no release date

Publications Issued By Bonneville Power Administration

1. Backgrounder - Understanding Indoor Radon

Radon News Digest

Radon Legal Issues for the Real Estate Profession

Consumer Reports

Radon Detectors, How to Find Out If Your Home Has A Radon Problem

Technology Review

The Indoor Radon Story

Energy Auditor and Retrofitter

Rn

Solar Age

Defeating Radon

Senator LAUTENBERG. The GAO report says that 50 percent of the HUD owned houses on the Seneca Indian Reservation had elevated levels of radon. Now, HUD has turned down a request to fund radon mitigation to address this problem.

Mr. Barnes, do you think that you could work with HUD in designing a program to test mitigation measures in HUD owned housing on this and other Indian reservations?

Mr. BARNES. We do have some efforts underway—I think they were referenced in our testimony—to work on diagnosing and mitigating properties on Indian reservations.

Senator LAUTENBERG. So, EPA is ready to work with HUD in developing information on mitigation techniques. Is that correct?

Mr. BARNES. Yes.

Senator LAUTENBERG. Why did HUD turn down a request to fund this mitigation problem?

Mr. STOKVIS. I am told that we have not turned down a request to fund, but that it is currently under evaluation with EPA.

Senator LAUTENBERG. When did the awareness of the problem develop?

Mr. STOKVIS. I am told it was very recently, when it was raised as part of the GAO investigation. I want to clarify for the record that we do, as Mr. Barnes says, have a memorandum of understanding with the EPA to deal with the testing of over 2000 homes on 3 different Indian reservations.

Senator LAUTENBERG. This is in the GAO report. The executive director for the Seneca Nation Housing Authority told GAO that they had a proposal which included a request for radon mitigation assistance which was submitted to HUD. This request was for HUD Comprehensive Improvement Assistance Program funds, but it wasn't approved by HUD, according to the Seneca Nation Housing Authority official.

Mr. Luke, is that subject a familiar one to you? It is in the GAO report. Do you have any idea when that request was made?

Mr. LUKE. Mr. Chairman, my information is that the request was made last year, and they are going to resubmit it.

Senator LAUTENBERG. Last year? Any month, any indication of what part of the year?

Mr. LUKE. No, sir. We can submit that for the record if you like.

Senator LAUTENBERG. I would appreciate that.

[GAO supplied the following:]

During the May 18, 1988 hearings, HUD and GAO was asked when the Seneca National Housing Authority requested funds from HUD for radon mitigation work. GAO's response follows.

"On March 5, 1987, the Seneca Nation Housing Authority sent HUD a Comprehensive Improvement Assistance Program application, which included a request for funds to address the radon problem currently present on the reservations of the Seneca Nation."

Senator LAUTENBERG. Do you have, Mr. Stokvis, any indication of when the request was made? Do you challenge that it was made last year?

Mr. STOKVIS. I am told it was last year, sir.

Senator LAUTENBERG. We are five months into the new year. If it were submitted December 31, that would allow us five months. If it

were submitted in January, we are talking about 17 months. Why is it that we don't want to help with these things?

Mr. STOKVIS. I will have to submit, regretfully, for the record the specifics on this particular case.

[HUD supplied the following:]

The Seneca Indians had undertaken a program of testing a limited number of homes on the reservation for elevated radon levels. One hundred homes, of a total number of 400 homes, were tested using a charcoal canister test. Approximately 15% of the homes were found to have elevated radon levels.

In February 1987, the Seneca Indians submitted an application to HUD for $19,196 in Emergency Comprehensive Improvement Assistance Program (CIAP) funds for testing and mitigation of elevated radon in reservation homes. HUD revised the application in accordance with standard procedures and established timeframes. The HUD review raised a number of questions regarding the reliability of the results of the testing due to the short-term nature of the tests conducted and lack of knowledge of procedures that need to be followed when conducting tests of this nature. Based upon the review findings and the fact that the Housing Authority had existing CIAP available to address the Seneca Indian concerns, HUD denied funding under the provisions of the Emergency CIAP funding program.

Despite the turndown of funding, HUD has attempted to address the concerns and needs of the Seneca Indians. HUD's Regional Office staff have been working closely with the Indian Housing Authority and EPA to address radon problems in houses on the reservation. HUD is currently working with the Director of the Indian Housing Authority and EPA to establish protocols for further testing and action. Proposed actions include conducting charcoal canister screening tests on the approximate 300 homes not yet tested to determine if there are elevated radon levels, providing information and technical assistance to persons whose homes are to be tested to ensure the accuracy of the test, and conducting long-term Alpha Track tests on those homes of the total 400 homes on the reservation, found to have elevated radon levels during the preliminary screening. The HUD Regional Office has indicated that it is planning to cover the costs of the testing devices necessary to conduct the screening and longer term testing.

Following these discussions, the Seneca Indians reapplied for CIAP funding on March 4, 1988. The requested amount is $19,206. This application is currently under review with a decision likely to be reached in the next thirty days.

Senator LAUTENBERG. The GAO report indicates that HUD did require that mitigation measures be incorporated in one public housing project. Mr. Barnes, could EPA work with HUD in identifying areas in mitigation techniques which could be incorporated into other HUD assisted housing?

Mr. BARNES. I think the overall answer there is yes, Mr. Chairman. I want to make clear that we are at differential stages in terms of working on techniques for different kinds of housing. The initial work we did was with respect to single family housing, and we have not done nearly as much, in fact, relatively little, with respect to multi-family housing.

So, if what we are talking about here is techniques for radon mitigation in larger buildings, that is an area that we have on our agenda to move to. We would be glad to share what information and expertise we have at this point on those dwellings.

Senator LAUTENBERG. Would that kind of an effort assist EPA in testing mitigation techniques in new construction?

Mr. BARNES. I think to the extent we have opportunities that are presented where we can learn more about different kinds of building structures and so on, we want to go to school on that so that we can expand our overall knowledge of how to either prevent or mitigate radon problems in different kinds of buildings.

Senator LAUTENBERG. Mr. Stokvis, is HUD willing to work with EPA on these?

Mr. STOKVIS. Definitely, Senator. We have in the past, and we look forward to doing so in the future.

Senator LAUTENBERG. In fact, HUD has authority under the Housing Act of 1949 to address radon contamination. It is a fairly broad definition of livable and safe housing.

Your testimony says that under this law, HUD has authority to establish environmental regulations. How can you persist in saying you don't have the authority to do these things?

Mr. STOKVIS. The authority in the 1949 act which you referred to is very broad and very general. The issue raised is a definition of what is our authority to deal specifically with the radon and—

Senator LAUTENBERG. Let me ask you this. Under the 1949 act, what is the essential phraseology there? Is it safe and livable? What is it?

Mr. STOKVIS. Let me ask Mr. Jim Miller from our Office of Environment and Energy.

Mr. MILLER. Mr. Chairman, I believe it is "a decent home and a suitable living environment" as the exact words of the 1949 act, a suitable living environment.

Senator LAUTENBERG. Suitable, and there have been court cases that say that rat infestation and poor wiring violate that principle. Radon can kill as many as 20,000 a year, is that, in your judgment, something that comes under the heading of safe housing or a reasonable living condition? I don't know if 20,000 people a year die from rat bites. It is pretty unpleasant, but I don't know about the death rate of people from rat bites.

I don't know whether we are dancing on the head of a pin here. You say that you do have a responsibility. You claim that you are a small player. In addition to FHA mortgage insurance programs, you have public housing, you have Indian housing, you have other housing involvement.

Do you have any idea how many housing units HUD has direct responsibility for? By direct I mean either by providing funds for ownership, rent subsidies, et cetera.

Mr. STOKVIS. We will provide the exact number, but, obviously, as the Senator says, it is a large number.

Senator LAUTENBERG. The disclaimer that you are a small player in the housing business——

Mr. STOKVIS. Well, as far as mortgage insurance, we are a small player. Just like we do not set national plumbing codes, national building codes, but defer to State and local codes to deal with that and, obviously, we want the plumbing in houses to be safe and adequate, we don't mandate those codes.

When you address the issue of a situation such as radon, especially when you have a lot of incomplete national mapping right now and scientific concerns on the issue and not a national standard, for HUD unilaterally to set up without proper statutory authority a whole program to deal with this issue would be something that our counsel says we do not have the ability to deal with.

Senator LAUTENBERG. You have the responsibility for insuring those mortgages. If those properties turned out to be worth less than the face value of the mortgage, that would be a serious negative, would it not, on the stability of FHA's ability to continue guaranteeing loans? That is fairly threatening, is it not? Don't you

have any responsibility when you insure a mortgage to say, hey, at least we believe that this mortgage is a mortgage on a viable and decent piece of property?

You do have some process of inspection, directly or indirectly, that says that when we insure something we want to know that there is a building on the property. Is that not the case?

Mr. STOKVIS. That is correct, Senator, and as you know, in the past, starting, I think, in 1979, we did some extensive radon testing in the copper mining lands in Anaconda and Butte. We found out there were some serious problems with the testing that we were attempting to mandate there, because it could easily be overridden by people not wanting to deal with the issue.

Senator LAUTENBERG. Well, if in 1979 you were concerned about it, I don't understand why in 1987 or 1988 you don't seem to be as concerned about it. What has been done, as I see it, is an attempt to define, to debate, to avoid taking the responsibility either by claiming you don't have funding or the authority.

Other agencies feel that they have an obligation to do it, and our lead housing agency in this country, for some reason or other, just can't muster either enough interest or courage or policy to say that we are going to get on to this, that when we tell someone to move into a public house, that when we insure a mortgage, that when we are involved with Indian reservation housing, that we think you have to watch out for the rats but you don't have to watch out for something that is established by health agencies as being a very serious health threat.

Mr. STOKVIS. Senator, as you know, we do have cases, as I mentioned in my testimony, where we do have public disclosure of radon hazards. Very candidly, the public buys the property even when they are aware of the hazard, and that has happened. In fact, I am also told that in Clinton, New Jersey, an area that has a problem of radon, purchase prices have not gone down because of the incidence of radon.

Senator LAUTENBERG. But there are lots of people whom, alerted to the problem, have taken steps to remediate. I mean, we don't want people to abandon their houses. These are perfectly good properties if the level of exposure is at a safe point.

We are not telling people to not buy property. My God, over a million homes in New Jersey, I think, have been touched by radon, including my own home. But we know that it is confined to a particular area or that we ventilate so that there isn't an exposure problem.

People are certainly entitled to know, however. They put something on a pack of cigarettes that says watch out, because if you do this, you could injure your health. Certainly, there ought to be the same kind of warnings, the same kind of alert given when people buy property or move into a house or when the government puts up a facility and says, by virtue of who we are, we are telling you it is okay to live here.

But by turning your back or at least dragging your feet, whichever part of the anatomy you want to use, you are not getting the job done.

HUD's last reason as its assertion for not being able to step up to the plate on this is that we lack ability to predict radon levels at new sites.

New Jersey has developed a statewide map of radon prone areas using geology, soil, and radon measurements. This is a map from the State of New Jersey's Department of Environmental Protection which they have developed for preliminary recommendations for radon testing.

They know very well that there are some areas here that are prone to higher exposures to radon. I live right here. It has been tested within the year, and I managed to pick up my share of the radon burden.

But you see that there are areas, the white and the lighter shaded areas, are the ones that should be tested as soon as practical, the white ones should be tested within a year and the others only tested for concern. You notice also that these are among the heaviest populated areas of our State.

So, if it is possible to do that, why hasn't HUD accepted that it has the ability to predict radon levels at new sites?

Mr. STOKVIS. Well, I appreciate your showing me that map about what the State of New Jersey is doing, the most densely populated State. Obviously, HUD's reaction is to say that we have worked with the State of New Jersey and other States to deal with the issue. As part of the federalism approach in dealing with this, we want to encourage more States to do that.

Within our own field offices in Camden and Newark, we provided information to home owners about mitigation of the radon problem within that area.

Senator LAUTENBERG. Mr. Barnes, what efforts have you, the U.S. Geological Survey, and States like New Jersey made to identify radon hot spots?

Mr. BARNES. That is one of our priority areas of work, working with USGS to try to establish geologic predictors. I think while we have made a fair bit of progress there, I think it would be less than candid to suggest that you can predict with accuracy what you are going to find as results in a particular home, because the soil conditions immediately under the house, the kind of construction and so on, a number of things can affect whether a particular house sitting in a high risk area has a problem.

We have tried to use those geologic predictors, though, as guides as to where people may want to be even more concerned and thus more likely to test homes. In Sweden they use those predictors as a way of indicating what kind of standards should be used for new housing. In the higher risk areas, you might want to do a little more on the preventive side up-front.

However, I think it would be unfair to HUD to suggest that that is an area of science where you can proceed with great precision. It is one we are trying to do the best we can to develop that tool and its potential utility to help all of us who are dealing with that.

Senator LAUTENBERG. Right. You may not be able to identify specific building sites, but certainly you can be area specific in terms of saying, listen, the likelihood is that you are going to find something here that you should be concerned about. Therefore, let's go further into it and see whether this condition does exist.

We will conclude with a couple of questions about policy suggested by GAO that the Federal housing agencies should consider.

Would notification about radon and radon prone areas at the time of sale improve public education about radon? Do you think so?

Mr. STOKVIS. I think any way you can better educate the public about the issue of radon and how to mitigate it would be extremely helpful.

Senator LAUTENBERG. Should we require that homes constructed in radon prone areas be built with radon mitigation techniques, Mr. Barnes?

Mr. BARNES. Well, Senator, as I indicated, we are working with building code associations and, I think, are going in that direction in terms of identifying what techniques can be used or built into homes and then trying to work with those groups to have them actually introduced into the State and local building codes. I think, ultimately, prevention by the work you are doing with new construction is probably the most cost effective way to get at this problem.

Senator LAUTENBERG. Mr. Stokvis, why should the Nation's housing agency knowingly sell homes that are defective homes with elevated radon levels?

Mr. STOKVIS. Why should we knowingly? The only way we knowingly do that is with a full public disclosure of the health hazard.

Senator LAUTENBERG. Then shouldn't you get on with the task of identifying the risks in whatever way that you can? You have a responsibility to protect those lives. What I hear as we go through this testimony is that there are more excuses than reasons for not getting on with this, whether we are talking about authority or funding or relationships with EPA or what have you.

I am not satisfied with the answers that we are getting here today. Lives are at stake, and I know that you feel it personally, but your agency has not indicated with the mandate that it has for its involvement with housing—its primary mission is to see that there is housing built in the country, that there is fair housing, that there is adequate housing.

You promote, and we agree wholeheartedly, the ownership of property, the ownership of private homes. You promote that. We want it. We think that is a very good standard to achieve, that people should have adequate housing.

We also believe that it ought to be safe housing, and you are the major player. Again, it is frustrating as the devil for me, because my responsibility as well as my personal concerns are for the health and well being of the people in our country.

When I know that a youngster who inhales air at a much faster rate than an adult is exposed to a potentially poisonous toxic material, I feel we ought to get on with solving the problem, whether it is people who live in the Indian nations, whether it is people who live in the urban centers, whether it is people who live in the luxurious communities that dot our country, whatever it is.

We have a responsibility as a government to say hey, listen, be aware of this. You can deal with the problem. I visited Sweden and went there specifically to see how they deal with radon. They treat it as a matter of course, but they treat it in such a way that the

person who is going to inhabit a home is alerted to it, that the home is required to have certain conditions met.

We are going to hear from people in the building community. They have been very cooperative. They want to do the right thing. The real estate community wants to do the right thing. No one wants to place people in a home that jeopardizes their health.

So, I would urge you to get your agency on the ball and give the Secretary my regards, and——

Mr. STOKVIS. Senator, I agree with your comments on the problem. As you realize, it is the Congress that writes the laws and authorizes the money for departments such as HUD to undertake activities. And it is this area that, if the law is changed and strengthened and HUD's authority is changed, obviously, HUD will deal with the program in a different way from the way we are now. We are acting on the basis of authority, basis of budget, and basis of what is known about how best to address the issue of radon.

Senator LAUTENBERG. How would you have us legislate to give you a little help along the way to get this job done? What would you suggest by way of legislation?

The National Park Service doesn't need legislation. DOD doesn't need it. Apparently, HUD does. What would you suggest we write into law?

Mr. STOKVIS. Well, the GAO report, to cite someone who has written this report, has several recommendations in there to you, Senator, as to what they felt would be a way to deal with this problem.

Senator LAUTENBERG. Do you endorse their report?

Mr. STOKVIS. I am not saying I endorse it, and in our final response, we will talk about it, but the GAO has made several recommendations. I feel, very candidly, that we are attempting to deal with this problem——

Senator LAUTENBERG. Are you satisfied with HUD's pace on this?

Mr. STOKVIS. Well, put it this way, Senator. As a person who has worked for 13 years in your home State of New Jersey, I am very much concerned about laws that require Federal agencies to spend a lot of money and then create a lot of unintended problems. I think probably one of the best ways to deal with radon is by self testing. In fact, I bought a radon self test kit for my home, and I am glad to say I do not have a radon problem. Therefore, it is important that we as an agency do everything possible to better educate the public on the hazards of radon and how to deal with it.

I know, as you said, the home builders and realtors are very much concerned. I think there is a lot that can be done not only by HUD but by others in this whole issue.

Senator LAUTENBERG. Well, you can help them an awful lot, and if you need more law, maybe we ought to give it to you. I think that the last thing we ought to do is clutter the books with more laws when there is, in fact, sufficient jurisdiction to permit you to get on with doing as much as you can to help relieve people of the health hazard or the threat of radon.

You talk about the budget. I don't know of many agencies that have money thrown at them where the generation of funds is initiated on the congressional side. Usually, it is the agency that comes

in and makes a request because it conscientiously believes that it has a responsibility that ought to be funded.

If it doesn't kick off at your end, it is not going to happen. Maybe I can get up enough interest now that everybody knows that practically every State in this country is affected by this. When it was thought to be a Pennsylvania-Reading Prong-New Jersey-New York situation, there were a lot of yawns around here. Now all of a sudden, there are very serious attempts to deal with the problem nationally.

Maybe we can generate funds for you, but I will tell you, I think it would be a badge of honor if HUD came up and said hey, listen, here is a problem we are concerned about. Then the tables are turned. Then, figuratively, you are sitting here and I am sitting there and you can say to me, Senator, why didn't you give us enough money to do this when we asked you for it?

Thank you very much, gentlemen. We may have additional questions to submit to you for the record. I appreciate your cooperation. Even if we differ in approach, I thank you very much for your responses. And please try, Mr. Stokvis, to get as prompt a response as we can to GAO's report. (See p. 95.)

Thank you very much.

The next panel is Mr. Ferguson, Ms. Weiss, and Mr. Rosengarten. We would ask you to come to the table, please.

Welcome to our final panel. New Jersey has been a leader in so many things, and it has been a leader in dealing with the radon problem. The New Jersey realtors and home builders have played, to use the expression, a constructive role in the radon effort.

I want to thank both Bob Ferguson and Barry Rosengarten for coming today to testify. I also want to thank Susan Weiss for her testimony.

I understand that you are leaving the Consumer Federation and that this is literally your last hurrah or last activity for the Federation. I want you to know how much I appreciate your efforts and the efforts of the Federation in addressing the radon problem.

Ms. WEISS. Thank you.

Senator LAUTENBERG. I would invite you all with the same admonition to just try as much as you can to keep your testimony on the short side, but we are doing okay, so we want to hear what you have to say.

The schedule calls for Mr. Ferguson to present his testimony first.

STATEMENT OF ROBERT F. FERGUSON, JR., EXECUTIVE VICE PRESIDENT, NEW JERSEY ASSOCIATION OF REALTORS, REPRESENTING THE NATIONAL ASSOCIATION OF REALTORS

Mr. FERGUSON. Thank you, Mr. Chairman.

My name is Robert Ferguson. I am from Long Branch, New Jersey. I am the 1988 chairman of the Realtors Legislative Subcommittee on Energy, Environment, and Development. In addition, I am the executive vice president of the New Jersey Association of Realtors. On behalf of the 800,000 members of NAR, I would like to thank you, Senator, and the members of the Superfund and Environmental Oversight Subcommittee for the opportunity to present

our views on the issues surrounding the recent GAO report on indoor radon.

My remarks will be just a summary of a comprehensive statement that has been submitted for the record.

NAR strongly believes that every individual should have the opportunity to live in safe and decent housing. NAR continues to play a very active and positive role in the radon issue. Our radon awareness program has been in effect since August of 1985, well before radon gained national attention. NAR has produced and distributed thousands of radon information kits to realtors and the public. This was prior to publication of the EPA's radon booklets. Two years ago, a committee I served with, the Realtors Hazardous Substance Task Force, produced a manual to educate realtors on a variety of hazards that they may encounter in the field. Included in the manual was a comprehensive section on radon. As part of NAR's continuing dedication to provide its membership with up to date information on radon, I accompanied Senator Lautenberg and others to Sweden on the radon, fact finding mission in 1986. As Chairman of the Realtors subcommittee, I have been involved with the National association of Realtors in their radon program.

The impact of the radon issue on real estate transactions is one that we hear quite a bit about. Let me first touch on property values. Much attention has been paid to concerns over the presence of radon and its relation to property values. We have not seen a major decline in property values in those areas associated with elevated levels of naturally occurring radon. This is not surprising, because there are a number of factors that enter into the value of a home or any piece of real estate. In some areas, radon is one of those factors.

Radon problems can, based on our experience, usually be mitigated for an approximate cost of between $200 and $2000. This is a relatively modest investment when you consider the median price of an existing or new home. Recent surveys conducted in Pennsylvania and New Jersey of our members fail to show any widespread property value declines as a result of the naturally occurring radon.

The major impact radon has had on the real estate industry is the effect that testing has had prior to closing on a property, namely, in the delays in getting the testers there and getting the results back. Normally, the testing is carried out during the time it takes for the normal paperwork to be processed in connection with the purchase of a home. However, problems can occur when there are delays in getting the proper testing equipment and response back from the laboratories where they analyze the samples. These problems can be compounded in those instances where an unacceptable radon level is found and retesting and mitigation techniques have to be worked out prior to closing.

On the subject of the GAO report, we have reviewed the GAO report on indoor radon with great interest. NAR believes that a major nationwide radon policy initiated by HUD or other Federal agencies that might involve mandatory disclosure or contingencies relating to mortgage funds may be premature at this time. We believe that research and ongoing program and policy development at the EPA and DOE will yield results in the not too distant future

that will provide the direction that society needs to take on this issue.

While some have criticized EPA for not responding quickly, it should be pointed out that three years ago, the average citizen—and I might include Bob Ferguson—never heard about radon. As a result of the discovery at the Watras home and the media coverage and investigation that took place, radon became an overnight instant issue.

During the last three years, EPA, with little money and limited Congressional involvement, has developed research programs and has issued at least six booklets to help homeowners, builders, realtors, and others to deal with the problem. EPA has established a program whereby radon testers are graded on their ability to measure the radon levels. We recognize there are plenty of areas that need improvement, however, EPA has taken a strong leadership role in radon policy development and should continue to do so. We continue to support EPA's continued relationship with other Federal agencies so that needed guidance on radon monitoring and mitigation will move forward.

The results of the current EPA and DOE programs are expected to be relevant to both homes under construction and existing homes. We have no evidence to indicate that a HUD home has any unique characteristics that would warrant a special program solely directed at that type of housing. The information and programs being developed by EPA and DOE hopefully will be useful to all homeowners across the country. Additionally, the unique circumstances surrounding both the behavior of radon gas and its control may require the development of new means of public education and exposure minimization. It is clear that massive radon programs developed and enforced by each Federal agency are not necessarily the way to appropriately protect the public health. EPA's current guidance documents provide assistance on radon testing and mitigation to all homeowners regardless of if the owner is a public agency or if the home was purchased with federally assisted financing.

NAR understands and recognizes the desire of some in government to urge individual agencies to act. NAR is pleased with the language drafted by you, Senator, that has been included in S. 1629, the Indoor Air Quality Act. This language specifically maps out how HUD should work with EPA in demonstrating radon measurement and mitigation techniques in a limited number of projects. We believe this approach is an appropriate response to the recommendations of the GAO report. We commend you, Senator, for your actions in this area.

It is going to require some time for the public, Congress, and EPA to determine the best course of action to minimize the public health risk from radon gas. Legislation such as S. 744, which passed the Senate, and H.R. 2837 provide additional resources to quantify and limit public exposure to radon. Implementation of the programs envisioned in these bills would provide us with information needed to make intelligent decisions about the value of other Federal initiatives.

Another option for Congressional consideration is the use of tax credits to further encourage homeowners to implement radon mini-

mization strategies. Several bills have been introduced in Congress utilizing the tax credit approach. NAR is a strong supporter of S. 756 which allows certain radon mitigation costs to qualify for the medical care expense deduction for income tax purposes. We will continue to support that bill, Senator, in attempting to ensure its passage.

In conclusion, I would like to inform the subcommittee that the National Association of Realtors has established a Real Estate Work Group with our friends the National Association of Home Builders and the EPA. We discuss a variety of technical issues relating to radon monitoring and mitigation. We have high hopes that the work group will focus on a number of problems raised by yourself and the GAO report. HUD's participation in this forum certainly would be welcomed.

Again, we appreciate this opportunity to present testimony on the radon gas issue and look forward to working with this subcommittee as it continues its deliberations.

Thank you, sir.

Senator LAUTENBERG. Thank you very much, Mr. Ferguson. I notice that you have an appendix to your statement which we will include in the record so that your whole statement is recorded.

Ms. Weiss?

STATEMENT OF SUSAN A. WEISS, LEGISLATIVE REPRESENTATIVE, CONSUMER FEDERATION OF AMERICA

Ms. WEISS. Thank you, Senator.

I am Susan Weiss, legislative representative of the Consumer Federation of America. We represent more than 240 local, State, and national organizations with more than 50 million people.

Thank you very much for the opportunity to testify today concerning the recent GAO report on radon. Our position today is consistent with our longstanding policy to assure that the government does not abandon its commitment to assure decent and safe housing.

I would like to primarily focus my remarks on HUD and its apparent retreat, as we saw today, from responsibility for radon contamination.

For many years now, CFA has identified indoor air pollution generally as the number one hidden health threat to our nation, but until recently, indoor air pollution has received little national attention. Thanks to your leadership, Mr. Chairman, that is beginning to change, at least in certain sectors.

Congress has started to focus the nation's attention and resources on radon. We see homeowners now beginning to test their homes and mitigate hazards. We see State and local governments responding with programs designed to encourage radon reduction in the home.

Yet, as we have heard this morning, it is quite disturbing that the Nation's lead housing agency which has the potential to affect millions of homes and many millions of Americans has simply been asleep at the wheel. With up to 15,000 cancer deaths annually from radon, it should be a national priority to reduce exposure to elevated levels of radon in the homes of all Americans, regardless of

their income, and HUD should be in the lead. In our view, it has the mandate and the responsibility for decent and safe housing.

Absent HUD action, the risk of exposure to radon contamination is not likely to be reduced for American families with low incomes. Many consumers still remain unaware of the radon hazard or lack the resources to address it. Others still choose to ignore what they cannot see or feel.

With this invisible yet potentially fatal threat, there must be visible public leadership to demonstrate the significance of the problem in the home and the necessity for response. Yet, as reiterated today, HUD's approach, though, has simply been to bury its head in the sand. Hiding behind its claim of absence of authority, absence of money, and no existing, enforceable standard, HUD has simply reneged on its responsibility.

It is clear that this agency has to be forced into action. Establishing a radon policy is critical, and carrying it out is imperative. Absent a directive from Congress, it is our belief that this just will not occur.

CFA generally supports the GAO recommendations for activities to be undertaken by HUD and certainly hopes that HUD will take them seriously. That remains certainly unclear after today's testimony, however.

Priorities must be set by HUD for action. We look first, of course, to preventive measures for new construction as the logical place to begin. We also believe, at the same time, that HUD must look at strategies to address radon contamination in existing housing units, particularly those properties directly within its control. It was disturbing today to hear HUD call itself a small player, especially when it comes to public housing.

While we recognize that reducing radon contamination in existing housing is a massive and potentially costly undertaking, HUD's present policy of avoidance will simply not alleviate the problem. Without HUD's initiative to address radon contamination, there is likely to be little or no protection for, one, the nearly 6 million single family dwellings insured under its mortgage program; two, the approximately 800,000 families that receive assistance under section 8; and, three, the over 1.3 million public and Indian housing units which are now home to more than 3 million Americans. To me, that is not a small player.

CFA believes that among HUD's priorities should be an aggressive policy towards reducing radon contamination in public and Indian housing. We believe that the explicit intent of this program, despite HUD's protestation, is to ensure decent, safe, and sanitary housing for low income families.

It only seems obvious that "safe" housing contemplates protection from exposure to elevated radon levels. HUD apparently needs that explicit direction from Congress.

We also would suggest directing HUD to consider assessment of the magnitude of the problem as well as providing, at a minimum, testing and mitigation information to the local housing authorities.

Another action that we suggest might be considered in looking at any legislative scheme is incorporation by HUD of a requirement in its modernization program for public housing to include radon testing and mitigation.

HUD already has extensive requirements in place to ensure the adequacy of insured single family homes and section 8 units. As with public housing, its mandate under section 8 is again to ensure decent, safe, and sanitary housing. Simply put, HUD cannot meet that requirement for any of these programs and, at the same time, ignore the radon problem.

We again believe that HUD has the mandate to address the radom problems, and if it continues to refuse to accept it, then we ask that Congress step in and direct HUD to take the responsibility. HUD can no longer be allowed to retreat from this significant health risk to all Americans, particularly in those properties directly within its control. If HUD is not responsible enough to seek the funds that it says are necessary for radon reduction, then we ask Congress again to take the initiative and provide the mandate and the funds.

Thank you very much.

Senator LAUTENBERG. Thank you very much.

Mr. Rosengarten, welcome to this house of legislation. It is different from what you do each day, I know, but we are anxious to hear what you have to say.

STATEMENT OF BARRY ROSENGARTEN, RADON TASK FORCE, NATIONAL ASSOCIATION OF HOME BUILDERS

Mr. ROSENGARTEN. Senator, thank you very much.

Mr. Chairman and members of the subcommittee, good morning. My name is Barry Rosengarten. I am a builder from Perth Amboy, New Jersey and a past president of the New Jersey Builders Association. On behalf of the more than 154,000 members of the National Association of Home Builders, NAHB, I am pleased to have this opportunity to offer our views on the role of the Federal Government in dealing with radon gas.

NAHB just completed its spring board of directors meeting here in Washington. At the meeting, we created a comprehensive policy outlining NAHB's response to the issue of radon gas infiltration in residential homes. This policy was the product of a special builder task force on radon created last year. I am a member of this task force.

Since its formation, our task force has met on numerous occasions. We obtained a wide cross section of opinion on the many difficult issues posed by radon gas, and we discussed how the home building industry should respond.

We believe that radon is a manageable problem, and after considerable deliberation, we formulated a response which is both concise and direct. We do not wish to become involved in prolonged public debates about the health effects of radon. NAHB builders simply want to build the best buildings we can so that the public can have safe, healthy, and affordable housing.

As the General Accounting Office study points out, radon also presents many difficult issues that must be addressed by the Federal housing agencies. However, while it must be remembered that even though the Federal Government may be in the position of deciding radon policies for its housing programs, the builders of this

Nation are the people who will actually have to incorporate these policies into the Nation's housing stock.

NAHB's radon policy addresses many of the same key points raised by the GAO. I therefore would like to offer NAHB's views as guidance to the Federal housing agencies.

On site testing, current testing technology does not allow future indoor radon levels to be predicted from a site test. The cost of testing a site, in some cases, may be higher than the cost of reasonable preventive construction methods.

Further research is needed to find cost effective site testing techniques that can be correlated to future indoor radon levels when specific construction techniques are employed.

On home testing, much confusion exists regarding the meaning of short-term, 3 to 7 day home test results. Radon levels can fluctuate on a seasonal, daily, or even hourly basis. The Environmental Protection Agency's radon health risk estimates are based on an annual average level which cannot be ascertained from short-term tests. Such tests provide little useful information other than whether a longer-term test is warranted.

In addition, the validity of a short-term measurement can be destroyed if someone simply leaves open a door or a window. In such situations, a homeowner could be lulled into a false sense of security thinking that there is no radon problem when, in fact, one may exist.

Because of the unreliability of short-term test results, NAHB believes that the outcome of radon tests should not be included as a condition of sale in real estate transactions. An accurate indication of the radon level in a home is currently not obtainable within the amount of time that a new home sales transaction should reasonably be expected to occur.

With a new home transaction, the delay required to obtain a meaningful radon measure may unreasonably raise the cost of the home to the consumer.

Regarding technology, NAHB, in conjunction with the EPA, developed and distributed the publication, "Radon Reduction in New Construction, an Interim Guide." This document which represents the best available technology will be updated as new radon prevention technologies are developed.

As an industry, NAHB has taken the initiative in developing construction technologies to prevent radon infiltration into new homes. Many of the studies regarding the effectiveness of specific prevention methods are not complete, including the largest one which is being conducted in New Jersey with over 100 homes by NAHB's national research center in conjunction with EPA, the New Jersey Builders Association, and the State of New Jersey.

However, preliminary results indicate that radon infiltration in new construction can be significantly reduced in a cost effective manner. Preliminary research results also indicate that relatively reliable methods exist for mitigating radon problems in existing homes.

Additional research is needed regarding both prevention and mitigation. Most of it should be funded and conducted at the Federal level and coordinated with the private sector to prevent the du-

plication and fragmentation of efforts that might result if research dollars are distributed to individual States.

However, researchers at the national level must take into account regional differences in construction methods.

NAHB supports the development, through the consensus process, of practical, prescriptive construction techniques regarding radon but does not support performance based standards.

NAHB believes that the development of cost effective standards that address various radon issues such as prevention techniques for new construction; mitigation techniques for existing homes; diagnostic procedures, that is, determining the scope of a radon problem and recommending appropriate action; and testing methods and devices for both sites and homes is crucial.

On building codes, NAHB supports the adoption of non-mandatory—that means at the builder's discretion— prescriptive construction techniques by the model code organizations. Different areas of the country have different experiences with radon because of significant variations in soils, geology, construction types, and weather conditions.

So, decisions about codes should be addressed at the State and local level, not at the Federal level.

Building practices vary greatly nationwide. In Colorado, home builders must contend with expansive soils that affect the types of foundations that may be utilized. In many parts of New Jersey, a greater concern for water proofing has led builders to incorporate techniques that might be considered excessive in drier areas.

In very warm southern climates, most homes are built slab on grade and do not have basements in which radon can accumulate. We must worry about indoor air quality in the primary living areas.

In conclusion, the Federal Government has an important role to play in fostering additional research and serving as the central player in informing the American public regarding what they should do about radon. NAHB believes that the Federal Government's involvement in research about radon is essential. Private industry cannot adequately investigate and fund all of the radon related scientific research projects.

Research must continue in order to develop the most effective prevention and mitigation techniques possible. The Federal Government should keep in mind that these techniques should be employed only where needed, namely, in those areas where there is a strong potential of radon being present. To simply prescribe that all housing must incorporate radon prevention techniques would unnecessarily add to the cost of housing and further worsen the housing affordability problem.

I represent America's housing industry, an industry that has acted responsibly in dealing with the relatively recently discovered threat of radon in residential homes. NAHB and the NAHB national research center in Upper Marlboro, Maryland have played a key role in developing radon mitigation and prevention techniques through EPA sponsored research. We have had a very productive relationship with the EPA and DOE, and we look forward to an even more fruitful relationship in the future.

Federal agencies which plan to develop policies on radon, HUD, the VA, the Farmers Home Administration, the National Park Service, or whomever should work closely with private industry. We do not have all of the answers, but our industry represents those who will have to ultimately implement the solutions.

We have accepted the initial challenges that radon has presented to the housing industry. The challenge that remains is to ensure adequate funding to conduct additional research that will enable home builders to continue building safe, healthy, and affordable housing for all Americans.

Senator, on behalf of the NAHB, I thank you for this opportunity. I would be pleased to answer any questions you might have.

Senator LAUTENBERG. We are glad to have you with us, all three of you.

One thing comes through, I think it is fair to say, loud and clear, and that is that HUD doesn't believe that they have a role in doing a radon assessment or trying to alert communities or individuals to the problems that might exist, and I agree with you, Mr. Rosengarten. We don't want to create problems. We don't want to elevate building costs.

I think it is also fair to say that when Mr. Ferguson and I visited Stockholm, Sweden, we saw some fairly inexpensive approaches to remediating the radon problem, especially, as you said, in some places, you can, just by the way you do your construction, almost eliminate the problem or prevent it.

However, the one thing that we ought to do is all of us have a responsibility to make sure anyone who occupies a house that we in some way have a responsibility for—and I have a lot of responsibility for housing—that we are not afraid to look people in the eye and say, listen, by moving in here, you are not hurting yourself; you are helping yourself.

When HUD gratuitously claims that it is a small player in the housing business, that was a bit much, and, Ms. Weiss, you identified the millions of families that are directly affected by HUD involvement in housing.

We don't want to cry fire in the theater, but to stand by and watch a fire burning and not say there is a problem out there is a dereliction of responsibility for us as citizens as well as either business or legislative or agency people.

I will ask each one of you, what did you think generally? You heard HUD's response. You have looked at the GAO report. Just kind of off the cuff, as we say. You, Ms. Weiss, kind of treated it already, but what did you think of HUD's response? Did you think that GAO's concerns and recommendations were valid? Barry?

Mr. ROSENGARTEN. Absolutely. HUD's response is, I think, totally inadequate. The fact is that HUD needs to have the sense of research, the sense of guidance, and that they are important in the role of being certain that that guidance takes place.

HUD must initiate and must serve us in a proper way.

Senator LAUTENBERG. Do you look to HUD, for instance, for information? Does your association and its members look to HUD for advice? I mean, you certainly look to them for some help along the way when it comes to FHA mortgages or things of that nature? Bob?

Mr. FERGUSON. Quite frankly—and I have to speak primarily for New Jersey—no, we are not looking to HUD. We decided on a course of action on disclosing the potential radon problem in those areas where it has been identified as an area that is prone to have it, and we didn't go to HUD first. We just initiated an education program with our members and the public.

Oftentimes in an area like this, I would feel more comfortable with HUD acting but on the advice of maybe EPA. I wouldn't want, after this meeting, HUD to run back and say we have to come up with a program now.

I would be more comfortable if they would go to the proper scientific and medical departments within government and have them frame the strategies, and then HUD can carry it out, because HUD——

Senator LAUTENBERG. What you are really saying is you don't think they are up to the task, first, and, second, your people don't have the time to wait for it. You have to get on with it.

However, third, you felt and your associates in your industry felt that it was important to deal with the problem and that you set about on your own and the members of the industry set about on their own to say, hey, listen, we have a problem here that we have to deal with. It is good for the community and it is good for business, ultimately, to allay these fears and to deal with them.

That is in contrast to an ineffective HUD, in this case, not willing to face up to their responsibilities. What do you say?

Ms. WEISS. I think I would totally agree. What is appalling to me is, on the one hand, hearing them use as an excuse that they don't have an enforceable standard in that branch, and in the other branches of the government, they are saying there should be no enforceable standard or that they have no money, but they don't come and seek the money. To me, it is totally disingenuous.

Senator LAUTENBERG. They would not have won the award today for prompt dealing with the problem. They looked like they were playing dodge ball out there.

Is HUD in any way serving as a model for private radon efforts as suggested by EPA?

Mr. ROSENGARTEN. We haven't seen it, Senator.

We strongly believe that because they do affect so many millions of housing units in the country that just the broad base that they serve would be a vital basis for statistical analysis. The technical research that is necessary is in a potential area controlled through the basis of HUD involvement. They could test their product, and we could get many results from their tests.

Senator LAUTENBERG. What a data base that forms, right? I mean, you develop information over the largest sample possible, right? They have direct access to all those statistics.

Mr. ROSENGARTEN. Absolutely, Senator.

Senator LAUTENBERG. After all, they represent government. Should they be selling houses that it owns with elevated radon levels? Does anybody think they ought to at least check it out and make sure?

Mr. FERGUSON. I think they should have the same disclosure requirements that we in the private sector have.

Senator LAUTENBERG. At least as tough. At least as tough, because you are saying, look, there are certain conditions under which you buy this house. We are telling you that it is pest proofed, that the HVAC is working, et cetera. And you are giving your guarantee based on your reputation as a business person.

The Federal Government that violates trust—forget about agreement—I think makes a sham out of responsibility. They are supposed to be the example setter.

Well, we thank you very much. We don't have to beat up on HUD an awful lot. They manage to do a good job on themselves.

We look forward to working with you. The one thing that I think those of you here know is that I come out of the private sector, and my view of government is that it has a responsibility to protect the national well being and to then say to the private sector, look, you get on with doing what you have to in order to make sure that we are being responsible citizens, responsible business people, et cetera.

When it comes to governments, they have an absolute commitment that has to be observed that they can't be dealing with this stuff on the sly. I am going to just continue to dog after them. I think at times HUD gets tired and even EPA occasionally, but that is my responsibility.

Thank you very much for being with us today.

This hearing is adjourned.

[Whereupon, at 11:48 a.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.]

[Statements submitted for the record and an excerpt from the GAO report follow:]

United States General Accounting Office

GAO Testimony

For Release
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Expected at
9:30 a.m. EDT
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Limited Federal Response to Reduce Radon Contamination in Housing

Statement of
John H. Luke, Associate Director
Resources, Community and Economic Development Division

Before the
Subcommittee on Superfund and Environmental Oversight
Committee on Environment and Public Works
United States Senate

GAO/T-RCED-88-43

GAO Form 160 (12/87)

Mr. Chairman and Members of the Subcommittee:

We appreciate this opportunity to discuss the results of our work on radon,[1] which we performed at your request, Mr. Chairman. As a result of your concern about the efforts of federal agencies to deal with radon contamination in housing, we

-- described the status of the Environmental Protection Agency's (EPA) radon detection and mitigation efforts;

-- identified actions taken in response to potential radon hazards by the Department of Housing and Urban Development (HUD), the Farmers Home Administration (FmHA), the Veterans Administration (VA), and the National Park Service; and

-- studied the federal government's potential liability for indoor radon hazards in federally insured or assisted housing.

In summary, we found that the extent of federal activity varied considerably by agency. At EPA there are a number of efforts underway to identify and correct radon problems. However, HUD, FmHA, and the VA, which finance and insure civilian housing, have radon activities that range from responding to a few site-specific problems to not being involved with indoor radon issues at all. Only the National Park Service, which provides housing to some of its employees, has a radon program or policy in place. In addition, the courts have not addressed the federal government's liability for radon in housing when it acts as a seller, insurer, or landlord.

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[1] Indoor Radon: Limited Federal Response to Reduce Contamination in Housing (GAO/RCED-88-103, Apr. 1988).

What factors account for the general inaction by federal housing agencies to develop radon programs or policies? HUD, FmHA, and VA officials told us that the overall absence of a specific legislative mandate for an agency radon program is a primary reason. They also pointed to the uncertainty over the extent of the radon problem and the lack of a federal radon standard as reasons for their limited activity. While EPA does not intend to develop a radon standard, the agency has developed radon guidelines and is working on identifying high risk areas.

EPA HAS A NUMBER OF
RADON EFFORTS UNDERWAY

As I mentioned, EPA has a number of major efforts to identify and mitigate radon problems. One is a national radon assessment of the extent of the radon problem in homes, as required by the Superfund Amendments and Reauthorization Act of 1986.[2]

The planned national assessment has encountered delays, however, and it is not expected to be completed until fiscal year 1991. The assessment has been delayed in large part because of comments from a subcommittee of an EPA Science Advisory Board.[3] The subcommittee found that the survey design presented a valid approach for a national assessment. However, it did express a number of concerns, such as the exclusion of rental units from the national assessment. This issue had not been resolved at the time of our review.

In another effort, EPA is providing assistance to states to identify high risk areas. In 1987, EPA assisted 10 states. These

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[2] The legislation requires that work and educational institutions also be included in the assessment, but EPA's planned assessment is devoted exclusively to residences.

[3] The Science Advisory Board is an independent group of scientists brought together to advise EPA on various scientific matters.

surveys disclosed elevated radon levels in 21 percent of the approximately 10,000 houses tested.

EPA officials also said they will use a growing body of radon information now available from private radon testing firms. EPA plans to ask the major firms to submit their radon test results to it for consolidation and analysis. However, EPA has not set a time frame for performing this work, and funds were not requested for such work in its fiscal year 1988 budget. Because we believe the data may add measurably to existing radon knowledge, we recommended in our report that EPA act on this matter.

HUD'S RADON RESPONSE
IS PIECEMEAL

I would like now to discuss HUD's role. HUD, as the lead federal housing agency, has not delineated a specific policy or course of action it will take in response to emerging radon issues. Instead, HUD has responded to radon hazards in a limited, piecemeal manner.

For instance, HUD provides radon disclosure notices to prospective applicants of HUD-insured mortgages in three areas where radon problems were found prior to 1980.[4] It does not provide disclosure notices to mortgage applicants in other areas where high radon levels have been found. For example, radon disclosure notices are not used in Colorado or Kansas, even though EPA's state surveys found elevated radon levels in 39 percent of 900 houses tested in Colorado, and 21 percent of 1,000 houses tested in Kansas.

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[4] The three areas are (1) Butte and Anaconda, Montana; (2) Edgemont, South Dakota; and (3) certain portions of Florida.

In another illustration of its piecemeal radon response, HUD authorized radon reduction techniques during the construction of a single HUD-assisted public housing project in Bethlehem, Pennsylvania. HUD may not authorize such action for other HUD-assisted construction projects because the agency has no requirement or policy that radon reduction techniques be incorporated in new construction projects it finances.

Although HUD and EPA share responsibility for radon research under the Superfund Reauthorization, the agencies have not yet defined their roles. Specifically, this legislation requires that EPA and HUD jointly conduct research on methods to assess the potential for radon contamination in new construction and design measures to avoid indoor air pollution. EPA has taken the lead role in responding to this requirement, and, although HUD recently funded a $40,000 research project, a definitive HUD role remains unclear. Therefore, we recommended in our report that HUD and EPA define their respective roles and planned actions in response to their shared legislative mandate.

HUD officials said they have no other direct statutory mandate and that this is one of the primary reasons why HUD has not developed a radon policy. In addition, HUD officials have taken the position that outstanding radon issues prevent the development of such a policy. These issues include the lack of a federal radon standard, an inadequate methodology for surveying broad areas with potentially high radon levels, and the potential for manipulating short-term radon tests.

We agree that there are many outstanding radon issues, and this fact makes development of a radon policy more difficult. Nevertheless, we note that scientists estimate that from about 5,000 to 20,000 lung cancer deaths a year in the United States may be attributable to radon. Further, we believe that the outstanding issues should not prevent HUD from formulating appropriate policies

and procedures based on current information. Of course, the policies and procedures can be revised, if necessary, as additional knowledge is developed.

If the Congress wishes HUD to assume a more active role in responding to radon, it may want to consider outlining HUD's expected indoor radon responsibilities. These responsibilities could include the following:

-- providing prospective mortgage insurance applicants with general radon information through a disclosure notice;

-- incorporating, and evaluating the effectiveness of, radon mitigation techniques in new construction financed by the department, at least on a pilot basis; and

-- reporting to EPA on the effectiveness of any radon mitigation techniques used in HUD-assisted housing.

RESPONSE OF OTHER AGENCIES

With respect to the other agencies we reviewed--the FmHA, the VA, and the National Park Service--there are marked differences in their response to potential radon problems. For instance, VA and FmHA officials said they are unaware of any radon problems in the housing their agencies finance or insure, and neither agency has a radon policy. However, the FmHA is planning to develop an air pollution policy that will include radon.

This planned FmHA action contrasts with the VA, which considers radon to be a state and local government issue. The VA takes the position that it is not required to address potential radon problems in houses it insures. Consequently, the VA has no

policy, and has no plans to develop one, related to insuring houses that may have hazardous radon levels.

In contrast, the National Park Service, which provides housing to some of its employees, has tested about 2,800 permanent housing units. It has also tested some of its administrative buildings and seasonal housing. As a result, the Park Service plans to perform mitigation work on about 350 buildings that have shown elevated rad levels.

FEDERAL LIABILITY FOR RADON

The courts have not addressed whether the federal government is required to compensate for or mitigate radon in housing when it acts as a seller, insurer, or landlord.

Other housing conditions affecting habitability, however, have been addressed by the courts. Under the Housing and Community Development Amendments of 1978, recent lower federal court decisions have required the government as landlord to correct or eliminate conditions such as water leaks and rat infestation. Whether the reasoning of the most recent decisions will be upheld upon appeal, or extended to include exposure to radon at some undetermined level, is an issue that must be resolved by litigation.

Other court cases suggest that, except in unusual circumstances, the courts will not require the federal government as seller or insurer to assure that the housing it sells is free of hazardous levels of radon.

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In conclusion, federal agencies involved with housing have responded differently to radon hazards. Consequently, the overall federal housing response to the radon problem has been fragmented and limited. To more effectively deal with the radon issue, the Congress may wish to consider broadly outlining expected indoor radon responsibilities for federal agencies involved with housing.

Mr. Chairman, this concludes my prepared statement. I would be glad to respond to any questions that you or members of the Subcommittee might have.

STATEMENT

A. JAMES BARNES
DEPUTY ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE

SUBCOMMITTEE ON SUPERFUND AND ENVIRONMENTAL OVERSIGHT
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U. S. SENATE

MAY 18, 1988

INTRODUCTION

Good morning. I am pleased to be here today to discuss with you EPA's Radon Action Program and to respond to the recent General Accounting Office report, Indoor Radon: Limited Federal Response to Reduce Contamination in Housing. At the outset, I want to recognize the continuing interest in this environmental issue shown by you and your collegues on the Committee. Last April I appeared at a hearing before a joint Senate subcommittee to discuss EPA's radon program and propsed radon legislation.

I would like to first review the Agency's existing Radon Action Program and our implementation of the Superfund Amendments and Reauthorization Act's (SARA) radon provisions. I would then like to respond to the recommendations in the GAO indoor radon report.

HISTORY OF THE PROBLEM

Exposure to elevated indoor concentrations of radon gas was first recognized as a potential health problem in the 1960's when houses in Colorado were found to have been built with materials contaminated by uranium mill tailings. In the 1970's, EPA discovered that some houses built on reclaimed phosphate lands in Florida also had elevated radon levels. Additionally, in December 1984, extremely high naturally-occurring radon levels were detected in homes located on the Reading Prong, a geological formation which runs from Pennsylvania, through New Jersey, and into New York. Since that time, elevated concentrations of indoor radon have been found in numerous homes in many parts of the country.

Elevated levels of indoor radon increase one's chances of contracting lung cancer. EPA estimates that between 5,000 to 20,000 lung cancer deaths each year may be attributed to exposure to indoor radon. A recent National Academy of Sciences report confirmed that indoor radon is a serious national health problem, and reinforced EPA's radon risk estimates. While the Agency has not yet fully documented the extent of indoor radon exposures, we believe that four to eight million homes may be affected.

Radon is a naturally-occurring substance. It is found virtually everywhere. To reduce the health risks associated with radon, we need a program that educates the public about

the risks at hand and helps citizens make informed decisions about ways in which to reduce those risks.

EPA's RADON PROGRAM

EPA established its Radon Action Program in 1985 in response to the serious radon problem discovered in the Reading Prong. The goal of our program is to significantly reduce the health risks of radon through a program of technical assistance and by forming a partnership with other Federal agencies and the States. Certain types of activities, such as research and technical studies, are best conducted by the Federal government. Other activities, such as providing day-to-day advice to the public and detailed analyses of local situations, are best handled by State and local agencies because of their proximity to the problem.

EPA's Radon Action Program consists of four elements:

1. Problem Assessment - assessing the extent of the radon problem nationally;
2. Mitigation and Prevention - conducting research into methods of reducing radon levels in existing and new structures;
3. Capability Development - helping States develop programs to measure and diagnose radon problems, as well as to assist the private sector and the public;

4. Public Information - developing information for the States to use in helping citizens understand the risks associated with radon and how to reduce them.

In September 1986, Congress passed the Superfund Amendmendments and Reauthorization Act of 1986 which directs the Agency to undertake a number of activities to assess and reduce the risks associated with indoor radon exposure. The provisions of the law generally dovetailed with the program we had in place at that time.

PROGRAM HIGHLIGHTS

I would like to briefly review the progress we have made to date in addressing the radon issue.

1. Problem Assessment

We have two complementary activities underway to assess the extent and magnitude of the indoor radon problem. First, we are now assisting States in designing and implementing surveys to identify potentially high radon areas. In the winter of 1986/1987, ten States initiated surveys with EPA assistance: Alabama, Colorado, Connecticut, Kansas, Kentucky, Michigan, Rhode Island, Tennessee, Wisconsin, and Wyoming. EPA and the States jointly released the results from these surveys in August 1987. Radon levels exceeding our guideline of four picocuries per liter (pCi/L) were found in each State surveyed,

indicating that radon may be a problem in nearly every State. Elevated levels were found in about one in five homes, and one percent of the homes sampled exceeded 20 pCi/L. The Agency found that the distribution of radon levels varies significantly among the States. In fact, the States with the lowest distribution or occurrence of radon had some of the highest individual readings found in the States surveyed. This indicates that radon hot spots may exist within a State even though the distribution of radon levels is relatively low. EPA found that in almost every case, geology proved to be a good indicator of high-risk areas for radon. The geological characteristics of the State were an important feature of the survey design. The Agency, in conjunction with other organizations such as United States Geological Survey (USGS), is continuing to improve its maps of known uranium and black shale deposits and the correlation between those deposits and elevated radon levels in houses.

An additional seven States: Massachusetts, North Dakota, Indiana, Minnesota, Missouri, Pennsylvania, and Arizona, as well as the Indian Nations in EPA's Region V conducted surveys this past winter with EPA assistance. Results of these surveys will be released this summer.

A second effort is the National Survey which will assess radon levels in residences. I will discuss the National Survey in my response to the GAO report.

EPA also has started examining options for assessing radon levels in schools and workplaces which will serve as a starting point for expanding EPA's assessment efforts beyond residences. We are also revising the standardized indoor radon measurement methods issued in 1986 to include new developments in radon measurement technology. EPA and the USGS are conducting land evaluation studies to more precisely identify those geological factors and characteristics which are most useful as indicators of high radon levels. EPA is also conducting preliminary work on the use of soil gas measurements to predict the radon potential for individual parcels of land.

2. Mitigation and Prevention

We have been working closely with the States in conducting a research and demonstration program for reducing indoor radon levels. We have completed our initial demonstration work in eastern Pennsylvania, successfully demonstrating mitigation techniques in 40 existing homes. Post-mitigation monitoring indicates that we have been able to reduce the levels in most of these homes in excess of 90 percent. We have also completed similar projects in New Jersey and New York, successfully mitigating these homes below 4 pCi/L. Current existing home field demonstrations are underway in Maryland, Ohio, Alabama, Tennessee, and Florida. Future demonstration sites are being considered in western States such as Washington and Montana. A portion of the current projects are testing less expensive

radon reduction techniques which could be applicable to homes with low to moderate radon concentrations.

Based on techniques developed through the Development and Demonstration Program, builders are incorporating radon resistant construction features into new houses in Maryland, New York and New Jersey. These demonstration programs will evaluate and test the effectiveness of these features. The current focus of the Development and Demonstartion Program has been on single-family detached houses. In the future, the research effort will be expanded to include schools and other structures.

In addition to the demonstration program, the EPA has initiated the House Evaluation Program to evaluate the cost and effectiveness of mitigation methods in the private sector and to train State and private sector personnel in diagnosing and mitigating radon in houses. State personnel, in cooperation with EPA, diagnose a house with elevated levels and offer the homeowner several alternative mitigation schemes. The homeowner decides whether or not to undertake the mitigation work and selects the contractor.

Under the House Evaluation Program, eighty homes have been evaluated and mitigated in Pennsylvania. The radon levels in all 80 homes have been reduced by more than 90 percent. The State of Pennsylvania funded mitigation projects in over 100 homes last year. EPA has spent about $250,000 on this project; Pennsylvania will spend approximately $1 million. Eighty more

homes have been evaluated in New Jersey, New York, Tennessee, Ohio and Virginia and in cooperation with the National Park Service and the Indian Health Service. Mitigation work is underway in these homes. EPA will expand the program in FY 88 into North Carolina, New Hampshire, Nebraska, Maine, Kentucky, Kansas, Iowa, Connecticut, Wisconsin and Rhode Island, evaluating a total of 100 homes. We expect other States to participate in the future. An additional benefit of this program is that more than 80 State and local officials have been given field training in radon diagnosis and mitigation.

The results from our mitigation efforts have been very promising. Further, private contractors are successfully reducing radon levels at a reasonable cost and the number of contractors performing mitigation services is increasing.

A critical element in reducing the health risk from radon exposure is to prevent radon entry in new construction. The Agency is demonstrating radon resistant techniques in new houses in Colorado, Michigan, New York, New Jersey, Maryland and Virginia. We are working closely with the housing industry, particularly the National Association of Home Builders, to incorporate radon resistant techniques in new construction and to accelerate the adoption of national and local building codes.

3. Capability Development

Another important aspect of the Radon Action Program is to develop State and private sector capabilities to diagnose and reduce indoor radon levels. In June 1986, we joined efforts with the New York State Energy Office to create a technical classroom training course for Federal and State officials and private contractors. This course has been offered approximately 30 times throughout the country to more than 1500 Federal and State officials and private contractors. Representatives from more than 40 States have participated in the training course. The course has been videotaped and we have made the tapes and other course materials available to the States for their use. I am pleased to report that some States are now using these training materials to conduct their own courses. We are currently updating the course and plan to offer 8 courses this year.

We have also prepared, in cooperation with State radiation program directors, the "Summary of State Radon Programs" which describes the range of radon activities currently underway in each State, the administrative and legislative mechanisms used to support the activities, and the resources devoted to them. Last October, EPA held a two-day workshop with all State radiation program directors to share information and to discuss ideas for developing State radon programs. In cooperation with the Conference of Radiation Control Program Directors, Inc. (CRCPD) EPA is developing a publication that describes the "Key Elements" of state radon program.

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The Agency also provides technical advice on radon measurement methods and calibration services to the States and private firms. With EPA's assistance, a number of States across the country are establishing their own measurement programs.

In response to requests from the States, EPA established the Radon Measurement Proficiency (RMP) Program to ensure that those in the radon measurement business meet certain minimum requirements. Participation in this quality assurance program is voluntary, but New Jersey is using the proficiency evaluations as a basis for certification. Other States are considering similar certification programs. In all States, the RMP has generated a list of reputable firms in which homeowners can have confidence. The RMP program has been well-received and is growing rapidly--35 firms successfully passed the first round, and in each subsequent round the number of firms has more than doubled. Over 1200 firms will be participating in the fifth round. Our experience also indicates, moreover, that modest initial Federal expenditures have leveraged greater investments by State and local governments. Pennsylvania and New Jersey are now each committing State resources much greater than the Federal government's investment in each of those States.

4. Public Information

As public concern about the health risks associated with indoor radon increased, the development and dissemination of public information became a high priority for the States and EPA. In August 1986, we issued two brochures, "A Citizen's Guide To Radon: What It Is and What to Do About It," and "Radon Reduction Methods: A Homeowner's Guide." The Homeowner's Guide was updated this summer to include the latest information on successful mitigation methods. More than 500,000 copies of these publications have been distributed to the public by EPA and the States. Most States are now reprinting copies of these brochures. Several other technical documents on radon measurement and mitigation techniques have been prepared and provided to the States and the private sector including, "Radon Reduction Techniques for Detached Houses: Technical Guidance," "Removal of Radon from Household Water," and "Radon Reduction in New Construction: An Interim Guide." We worked closely with the National Association of Home Builders to develop the new construction guide which emphasizes radon prevention in new homes. This brochure was released in September 1987 and has been provided to the States and their homebuilder's associations for distribution to the public.

Once a radon problem has been discovered, a State must react quickly to establish credibility with its citizens. If it fails, the public will look to the Federal government for assistance, potentially requiring a larger and more enduring

Federal program. In the few States that we have worked with, this situation has been averted by providing States the necessary tools to anticipate and respond to public concerns.

Radon in Drinking Water

Radon also occurs in drinking water derived from ground water. It volatilizes inside the house when water is used and contributes to indoor radon levels. While the total exposure resulting from drinking water is small compared to other sources (perhaps 3 to 7 percent of the total), it can be a significant portion of exposure where it occurs. It is also easily and cheaply removed by centralized water treatment.

Under the Safe Drinking Water Act Amendments of 1986, EPA is required to set drinking water regulations for radon. The regulations are under development, and we expect to propose them by the end of calendar year 1988.

FUTURE DIRECTION

For the first two years of our program our efforts have been directed toward meeting the urgent needs of the States in the Reading Prong. We are focusing on fulfilling the requirements of SARA and assisting those States which are finding elevated levels.

We will continue to expand our mitigation efforts into States outside the Reading Prong to include different housing types in various climates. We will be working with building

code organizations to ensure that radon-resistant techniques are incorporated into new construction practices through modifications to local building codes.

We will continue to provide technical assistance to States to enable them to develop radon programs and expand private sector capabilities. Several of the programs we developed in response to the needs of the Reading Prong will be continued and expanded to assist other States.

With the anticipated growth in the radon measurement industry, our quality assurance program will continue to provide a critical service to the States and the public.

We will also work to provide States with information to help homeowners understand and evaluate the radon problem. An effective public education program will continue to be an essential component of EPA's approach to reducing risks from indoor radon.

We are encouraged by the results of our initial efforts. States are accepting their responsibilities and are helping citizens reduce their risk from indoor radon. By strengthening this Federal-State partnership, we can achieve our mutual goal of reducing the public health risk from radon.

RESPONSE TO GAO REPORT

I would now like to briefly respond to the summary conclusions of the GAO report and to each of the three specific recommendations outlined in the report. Following that, I will address specific concerns which have been raised by the Subcommittee.

SUMMARY RESPONSE

In summary, the GAO report concludes that, although EPA has made progress toward addressing the detection of radon and the development of methods to reduce radon contamination, much work remains to be done. The report also found that, for the most part, the response of Federal agencies involved with civilian housing (HUD, VA, FmHA) has been limited. The report attributes this limited response, in part, to the lack of a clear mandate for HUD, the VA, and the FmHA to address indoor radon hazards.

We believe that Federal housing agencies can play an important role as models and leaders for the private sector in the adoption of radon assessment, mitigation and prevention strategies. Within our available resources, we are working closely with all agencies which have expressed interest

in addressing radon problems. Projects currently underway with the Department of Defense, the National Park Service, and the Department of Energy illustrate the benefits of interagency cooperation on radon activities. We look forward to continued and expanded cooperative projects with these and other Federal agencies in the future.

SPECIFIC RECOMMENDATIONS

The first recommendation in the report is that "the Secretary of HUD and the EPA Administrator, define their respective responsibilities and planned actions in response to their shared legislative mandate under the Superfund Amendments and Reauthorization Act of 1986."

EPA believes that a clear definition of responsibilities between the two agencies could be beneficial to the overall Federal response to radon. EPA has been working with HUD over the past several years to share information about radon and about our respective radon-related activities. Both EPA and HUD participate in interagency committees that serve as forums for this exchange of information. We have met with HUD on several occasions and have also provided training to HUD personnel on radon diagnostics and mitigation. EPA looks forward to working with HUD on future efforts and believes that HUD can make a significant contribution to our knowledge of

radon contamination and mitigation technology. I will describe potential cooperative efforts in greater detail when I address the questions which have been raised by the Subcommittee.

The second recommendation of the report is that "the Administrator, EPA, provide for timely consolidation and analysis of private firms' test results on indoor radon measurements."

EPA is making progress in addressing this recommendation. EPA has collected measurement data from several major radon testing firms across the country. This data will be compiled into a comprehensive database as permitted by available resources.

The third recommendation of the report is that "the Secretary of the Interior and the Administrator, EPA, amend their Interagency Agreement (IAG) to require that Park Service information on the effectiveness of indoor radon mitigation techniques be provided to EPA for its use and consolidation with other mitigation data."

EPA agrees that the mitigation data gathered by the National Park Service as part of their Radon Gas Detection Program will provide valuable information on a wide variety of housing structures. Preliminary data from NPS mitigation

efforts has already been provided to EPA. Although the IAG does not specifically require that this data be provided to EPA, we foresee no difficulty with obtaining future results.

SPECIFIC ISSUES RAISED BY THE SUBCOMMITTEE

I would now like to take a few minutes to respond to each of the questions which the Subcommittee has asked me to address.

QUESTION 1: Will EPA seek the authority to establish a federal radon standard?

As you know, we currently have action guidelines and recommendations for radon that we have provided to the States and the public. We are pleased that these action guidelines are being widely accepted. We therefore believe that it is inappropriate for EPA to establish a formal standard for indoor radon. We do not believe that EPA regulatory intervention beyond guidance would prove warranted given the localized nature of radon problems and the need for States and localities to tailor their programs to specific areas. In establishing the action guideline, the Agency considered the practicality and feasibility of reducing radon concentrations in houses.

Given current mitigation and prevention technologies, we believe that the action guidelines and recommendations in our brochure, "A Citizen's Guide to Radon" are currently the appropriate Federal guidance on indoor radon levels in residences.

QUESTION 2: Has the lack of a standard hindered EPA's effort to address radon contamination?

We believe that the Agency s action guidelines and recommendations have been very effective in providing States, individual homeowners, the private sector and others with needed guidance. The absence of a radon standard has not hindered our efforts in making significant progress in the four key program areas of Problem Assessment, Mitigation and Prevention, Capability Development and Public Information. Since EPA's Radon Action Program was established in September 1985, we have accomplished a great deal, as I previously outlined.

We are pleased that the action guidelines and recommendations are now being widely accepted. Homeowners have responded by making over 500,000 radon measurements, and although the actual number of houses that have been mitigated is currently unknown, we know that many houses are being

mitigated. States, private organizations and some Federal agencies have impiemented comprehensive radon programs and/or policies. We therefore believe the Federal action on indoor radon levels is appropriate. In fact, the absence of a Federal standard may have helped to leverage more aggressive, and effective, participation by States, localities, and private parties.

QUESTION 3: What research has the Department of Housing and Urban Development conducted with you as required by SARA?

EPA has met with HUD several times to discuss EPA's radon programs and potential cooperative activities. EPA has provided technical assistance and training to HUD. EPA has also provided HUD with results of radon surveys and mitigation studies, and will continue to coordinate EPA activities through the Committee on Indoor Air Quality and the Committee on Interagency Radiation Research and Policy Coordination.

QUESTION 4: What efforts have you made to work with HUD and other Federal housing agencies on radon and how have these agencies responded?

EPA has provided HUD and several other Federal housing agencies with information about radon, its health risks, and

methods to reduce exposure. EPA has met with HUD several times to discuss EPA's radon programs and activities. HUD's potential role in Federal radon efforts has also been discussed. EPA provided technical assistance to HUD on a project in Bethlehem, Pennsylvania. EPA has also provided radon diagnostic and mitigation training to HUD personnel and has sought HUD review on several publications, including "A Citizen's Guide to Radon" and "Radon Reduction in New Construction: an Interim Guide."

EPA is also working with other Federal housing agencies such as the Veteran's Administration (VA) and the Department of Interior (Bureau of Indian Affairs). We have met with representatives from these agencies to discuss potential projects. In addition, EPA is cooperating with DOD and other Federal agencies in conducting radon surveys. For example, EPA and the National Park Service are cooperating to: conduct radon surveys of NPS structures, diagnose and mitigate structures with elevated levels, and exchange data.

EPA is also an active participant on the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC) and the Committee on Indoor Air Quality (CIAQ). EPA and DOE co-chair the CIAQ Radon Working group. These committees serve to promote information exchange and program coordination among Federal agencies on indoor air quality and radiation issues.

QUESTION 5: What efforts could Federal housing agencies undertake (such as research, mandatory construction standards, testing, notification) to assist EPA in its radon program?

We have worked with a number of Federal agencies on radon issues and we have been satisfied with the level of activity and interest shown by those Agencies.

QUESTION 6: What efforts have other Federal agencies, particularly the Department of Defense and the US Geological Survey, undertaken to assist EPA in the radon program?

EPA has cooperated with a number of Federal agencies on a variety of radon projects. EPA benefits from these cooperative activities by obtaining additional data on assessment, mitigation and prevention. These projects, by agency, include:

Department of Defense:

The Department of Defense has worked closely with EPA to develop and establish its Radon Assessment and Mitigation Policy. This policy states that:

"...military components shall take appropriate action to establish radon assessment and mitigation programs... to ensure that military personnel their dependents and civilian personnel are not exposed to excessive levels of radon."

All three services and the Coast Guard have radon programs in place. EPA has provided diagnostic and mitigation training to the Air Force through an IAG, and is also assisting the Army and Defense Logistics Agency with radon surveys. EPA will benefit by expanding our database with this survey information.

US Geological Survey:

The US Geological Survey has worked closely with EPA to develop national and regional radon maps. EPA and USGS are conducting land evaluation studies to precisely identify those geological factors and characteristics which are most useful as predictors of high radon levels. USGS has provided expertise in developing State geologic characterizations for the State/EPA Radon Survey Program. USGS has also developed county-scale radon maps for Fairfax County, Virginia and Montgomery County, Maryland.

Department of Energy:

EPA and DOE have established a Memorandum of Understanding (MOU) on Radon. Under the MOU, EPA has responsibility for applied research and DOE is responsible for basic research. EPA and DOE are also co-sponsoring research in the problem assessment and mitigation areas.

General Services Administration.

The General Services Administration and EPA are currently negotiating an IAG where GSA facilities will serve as test sites for EPA's development of radon measurement protocols for workplaces. GSA and other Federal agencies could subsequently implement radon testing using these protocols.

National Park Service:

The National Park Service and EPA established an IAG under which EPA provides technical assistance to the NPS Radon Gas Detection Program. NPS has surveyed 3,100 housing units and is conducting mitigation where necessary. EPA has worked closely with NPS on this effort, providing detectors, diagnostic and mitigation training.

NPS is also participating in EPA's House Evaluation Program which provides hands-on training on radon diagnosis and mitigation. NPS will be sharing data with EPA on the results of their testing and mitigation activites.

Health and Human Services/Indian Health Service:

The Indian Health Service and EPA are cooperating on a number of projects. EPA Region 5 and the IHS are conducting a radon survey of Indian lands in Minnesota, Wisconsin, and Michigan. The Seneca Indian Nation in New York is cooperating with the Indian Health Service on participation in EPA's House Evaluation Program.

QUESTION 7: What is the status of the National Assessment?

EPA has begun the National Residential Radon Survey to determine the frequency distribution of annual average radon concentrations in occupied residences.

The preliminary work for the survey will be completed this summer and placement of radon detectors will begin in the winter of FY 1989. The survey will include rental properties and will be stratified by geography as suggested by the EPA Science Advisory Board.

The National Assessment also includes schools and workplaces. Prior to conducting a survey of schools and workplaces, we must first develop radon measurement protocols for these structures. We have initiated a research program to develop guidance for making radon measurements in schools.

CONCLUSION

We appreciate the Subcommittee's interest in this important environmental problem. I would be happy to respond to any follow-up questions that you may have.

TESTIMONY OF GENERAL DEPUTY ASSISTANT SECRETARY

JACK R. STOKVIS

OFFICE OF COMMUNITY PLANNING AND DEVELOPMENT

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

MAY 18, 1988

Subcommittee on Superfund and Environmental Oversight of the Senate Committee on Environment and Public Works

On behalf of the Secretary, I would like to take this opportunity to thank the members for giving the Department of Housing and Urban Development an opportunity to appear before this subcommittee to address the findings and recommendations contained in the recently completed General Accounting Office Report entitled, Indoor Radon: Limited Federal Response To Reduce Contamination in Housing.

Before I begin my testimony I would like to note for the record that the Department of Housing and Urban Development received copies of the GAO report only one month ago, on April 15, 1988. We are legally provided with a 60 day period to review the report and provide written comments. Therefore, although I am prepared to address

the major concerns of the report, let me emphasize that the Department intends to provide its official complete and thorough response to the report by the June 6, 1988 deadline.

The Department of Housing and Urban Development disagrees with the GAO report finding addressed to the Secretary and some of the statements made throughout the report. Most importantly, there are serious errors of omission and fact throughout the document. I will attempt here to briefly identify our preliminary findings and discuss each of the major areas with which the Department disagrees.

1. The major recommendation of the GAO was that the "Secretary of HUD and the Administrator EPA define their respective responsibilities and planned actions in response to their shared legislative mandate:"

The GAO recommendation fails to take into account the actions already taken and completed by both the Department of Housing and Urban Development and the Administrator of EPA in meeting the requirements of Title IV of the Superfund Amendment and Reauthorization Act of 1986, commonly referred to as SARA. The Superfund legislation clearly gives EPA the responsibility for establishing an advisory committee,

developing an implementation plan, coordinating with HUD in conducting research, reporting to Congress and providing funding authorizations.

HUD believes that EPA has done much to meet the requirements of Title IV. HUD has been part of an on-going committee, co-chaired by EPA and DOE, called the "Interagency Committee on Indoor Air Quality (CIAQ), which has developed a plan of action for conducting and coordinating research on radon among all the Federal agencies with responsibility for this issue. The plan, published by EPA in March 1988, is entitled "Current Federal Indoor Air Quality Activities."

In addition to coordinating its radon related activities through the CIAQ, HUD is a member of the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC), under the direction of the President's Office of Science and Technology. For 1988, HUD is providing $40,000 in CPD Salaries and Expense funds to support the Committee sponsored activities looking into radon and other radiation related issues.

In addition to these formal coordination mechanisms, HUD and EPA staff regularly communicate to ensure an effective and non-duplicative delivery of available program technical assistance and research funding. Most recently, HUD

contributed an additional $40,000 in research funds from its Office of Policy Development and Research to support a project in conjunction with the National Bureau of Standards (NBS). The project will examine the methods that can be used to determine the potential for radon at specific building sites. Work activities are expected to begin shortly.

I would also like to assure you that in providing on-site technical assistance services to States and local officials requesting such assistance, we have carefully coordinated our activities with EPA.

2. The GAO faults the Department for not adopting an official radon policy.

The Department has had an official radon policy that can be traced back to at least 1979. The HUD policy is to provide assistance on radon matters at the request of State or local government officials. The assistance HUD provides is determined on a case-by-case basis and is hand tailored to meet the specific needs of the situation. Given the nature of the radon phenomenon, HUD believes that this flexibility represents the best policy for meeting the needs of the locality requesting the assistance. Broadly mandated programs or actions do not necessarily mean an effective or efficient response.

HUD has prided itself on providing quality service to its customers, whether that service is to responding to questions for which definitive answers can be provided or to questions on issues, such as radon, for which we are still seeking complete answers. Given the available information, HUD's current radon policy gives us flexibility. We believe this makes us unique among Federal agencies and is something which we at HUD are proud.

3. The GAO faults the Department for not having developed official policy for the disposition of houses with elevated radon levels.

Where the Department of Housing and Urban Development has been requested to provide assistance and has identified either specific houses with elevated levels of radon or areas where there are known elevated radon levels, the Department has a policy of informing potential buyers of the radon condition and its potential effects in a Disclosure Notice.

4. The GAO report argues that HUD's failure to respond to actual radon hazards found in HUD assisted housing might expose HUD to liability as has happened where other conditions were found to be hazardous in public housing.

The Department is always concerned about liability risks to its FHA insurance fund, as it is with any other program. To date, case law dealing with structural or other deficiencies does not support the GAO assumption of undue risk to the Department. Rather, HUD believes that it is potentially placing itself at greater risk if it adopted a Federal agency-wide radon standard without adequate scientific underpinnings to make it supportable against legal action.

These summarize the major findings of the GAO report which the Department feels are not valid criticisms.

However, I would like now to turn to something which I believe is even more significant than what the report addressed. Most important I would like to focus on what the report did not clearly address or omitted! My specific concerns are identified as follows:

1. The GAO report asserts that HUD has the legal authority to take a leadership role in dealing with issues on radon. There is no legislative history to support this assertion. Based upon Congressional action, it is our position that the clear mandate for dealing with the radon issue has been given to EPA and the Department of Energy through the 1986 SARA amendments and budget authority.

   Both EPA AND DOE have significant funds budgeted to deal with radon research and related activities. DOE alone has allocated $14,000,000 for radon related activities. This figure dwarfs the $5,000,000 HUD has available to devote to safety and standards research activities. It is almost equivalent to HUD's entire budgetary authority for research activities for all HUD programs!

   Budget, of course, is not the only consideration. Our primary position is based upon legislative mandate. With a phenomenon like radon, we rely on the work and research of

these agencies with the scientific expertise to address the problem. We welcome, and support, the research efforts of those agencies.

Now, I would like to add that I believe the staff of the GAO worked diligently at preparing this report. Therefore, I have asked the HUD Office of General Counsel to provide a legal opinion on the GAO assumption that the Department has the authority for dealing with radon matters. That opinion will be included in our complete response to the GAO report.

2. The GAO fails to take into account the significant assistance that HUD provides to local officials in their attempts to learn more about and deal with local radon issues: In addition to its coordination activities with other Federal agencies, HUD has taken an active role in meeting the intent of SARA and furthering the knowledge that we have about radon. These activities include:

Assisting States and Local Governments. Activities of States and local governments, particularly those with the most active programs, are informally monitored for information which can be shared with other States and local governments on radon related matters. Additionally, HUD staff is evaluating an on-going project of the Florida Institute of Phosphate Research. The Institute has built three structures on radon emitting phosphate lands in an attempt to demonstrate methods for preventing radon entry. The Institute is also working with Florida state officials to develop a building code for radon resistant residential construction.

Providing Site Development Guidance and Controls. HUD has worked with EPA to provide specific technical assistance in areas including the State of Florida; Butte-Anaconda, Montana; Edgemont, South Dakota; and Bethlehem, Pennsylvania.

Survey of State Radon Activity. HUD has surveyed selected States including those known to have radon problem areas and those cooperating with EPA in a coordinated State mapping program. The survey concentrated on soliciting information on the State's organizational structure for addressing radon, proposed and existing legislation establishing a radon standard, laboratories and mitigation contractors and public information systems.

Dissemination of Information. HUD has taken an active role in disseminating information on radon. Over the last few years it has been HUD's policy to distribute new materials and information on radon and radon related research activities to State and local officials and HUD Field staff. A list of the publications is included in the materials provided to the committee. You can see the list is quite extensive.

In addition, HUD has prepared comprehensive technical reviews and critiques on three draft EPA radon publications prior to final printing and national distribution.

I appreciate the time you have provided me today. A written response to the specific questions you asked in your letter of invitation is submitted for the record.

I want to assure you that the Department of Housing and Urban Development is concerned about radon.

1. Does the Department favor adoption of a Federal Radon standard?

To date, EPA has established radon action guidelines which provides homeowners with a timeframe for taking action given definitive levels of radon. These guidelines have not been adopted by EPA as standards, nor have they been adopted by States and local governments as standards. HUD supports EPA's research efforts aimed at addressing radon issues. However, HUD like EPA has reservations about setting a Federal radon standard due to scientific uncertainty and the localized nature of the problem.

2. Does the Department have the authority to address radon contamination in the home?

The Housing Act of 1949 sets forth a goal of a "decent home and suitable living environment....". Under this broad policy statement, HUD has had a limited authority to establish environmental regulations. In the case of Radon, however, HUD does not have a clear mandate to establish recommendations governing all HUD assisted, insured or subsidized housing given: (1) the lack of a radon standard agreed to by the scientific community; (2) inadequate identification of radon prone areas; and (3) incomplete development and testing of adequate mitigation technology.

3. What has the Department done to conduct radon research in conjunction with EPA as required by the Superfund Amendments and Reauthorization Act?

HUD, using $40,000 in Policy Development and Research Funds, has initiated a project with the National Bureau of Standards (NBS) to develop and test methods to determine the potential for radon at specific building sites. HUD has coordinated this research effort with EPA through the interagency Committee on Indoor Air Quality (CIAQ). HUD's Office of Policy Development and Research is preparing a request for $200,000 in FY 1989 funds for follow-up work on this study. This is included as a line item budget request for safety and standards research.

HUD is also coordinating its research efforts with the Department of Energy through the Committee on Indoor Air Quality (CIAQ). DOE has a budget of $14,000,000 designated for radon related activities.

At the present time, EPA and DOE are conducting activities and research which specifically address methods for avoiding indoor radon exposure. HUD looks to both EPA and DOE for guidance and scientific research on radon issues given the fact that both these agencies have significantly greater funding levels devoted to research and technical ability at the staff level.

4. Does the Department support enactment of a statutory mandate to address radon and if so, what should this mandate contain?

The Department does not support a statutory mandate to address radon if it applies only to HUD. A statutory mandate should be applicable to all Federal agencies if it is to have any impact on residential construction and rehabilitated properties.

5. What funding requests has the Department made to Congress for radon related activities?

In FY 1988, HUD is spending $80,000 to support HUD research activities and research activities conducted by the Interagency Committee Interagency Radiation Research and Policy Coordination (CIRRPC) related to radon problems at specific sites. In FY 1989, the Department plans to request an estimated additional $200,000 in radon related research; $150,000 in technical assistance funds from the Secretary's Discretionary Fund, under Title I of the Housing and Community Development Act of 1974, as amended; and $40,000 in funds from the Office of Community Planning and Development for radon related activities.

6. When will the Department adopt a radon policy?

The Department has a radon policy which has been in existence for some time. The Department's policy is to provide assistance and information on radon matters based upon the requests of State or local officials. Each action is handled on a case-by-case basis and is crafted to meet the specific needs of the situation. To date the Department has provided the following types of assistance:

State of Florida - At the request of the State, the Department provided technical assistance to mitigate the effects of radon on reclaimed phosphate lands. The Department is providing a disclosure notice which is used in conjunction with the sale of existing housing notifying potential buyers that the property is situated in reclaimed phosphate lands. In addition, HUD will not insure new construction on the reclaimed phosphate land.

Butte-Anaconda, Montana - The State Health Authority after identifying the Butte-Anaconda area as having elevated levels of radon, requested HUD technical assistance. In 1979, HUD and EPA entered in to a Memorandum of Understanding (MOU) under which HUD assistance in the area was made contingent upon the results of specific site testing for the presence of radon gas. HUD made available $65,000 in Secretary's Discretionary Technical Assistance Program funds for use to test houses related to the local Community Development Block Grant Program. In addition, 1800 single family houses were tested under the MOU with EPA. The validity of the testing came into question when only two houses were found to have elevated radon levels.

In 1981 the Butte-Silver Bow Board of Health submitted a study to HUD, arguing that its results showed that the radon test should be eliminated as a requirement. After considerable review and analysis of the situation in the area by EPA, HUD agreed to stop the testing of individual properties. In place of testing the Department issues disclosure notices to all purchasers of existing housing who are seeking FHA insurance.

Edgemont, South Dakota - The City of Edgemont had identified the area as radon prone and sought assistance in conducting radon testing of the houses in the area. HUD conducted over 1800 tests in the area. As a result, HUD has revised its assistance to the area and now provides disclosure notices to all potential purchasers. HUD is the only Federal agency requiring radon disclosure notices.

Bethlehem, Pennsylvania - At the request of the Bethlehem Public Housing Authority (PHA), HUD and EPA reviewed mitigation techniques proposed for use by the Bethlehem PHA in pre-construction activities for a 100 duplex, two-story public housing building.

7. What research has the Department conducted or funded on radon problems in buildings other than one family houses?

In addition to providing $65,000 in Secretary's Discretionary Fund Technical Assistance Program funds in 1979 for testing of houses in the Butte-Anaconda area, the Department provided a $65,000 research grant to the Montana Department of Health and Environmental Science. The study was aimed at identifying remedial actions for reducing radon entry into existing structures. At the conclusion of the study in 1982, $250,000 in HUD Public Housing CIAP funds was made available to the Butte, Montana Housing Authority for remedial action on a 190 unit public housing complex.

HUD has focused its attention on radon in single-family housing because it represents the bulk of HUD's housing actions. In estimated numbers, Single Family housing represents approximately 1 million transactions per year verses approximately 1 thousand transactions per year in multi-family units. The Department believes that its focus on single family units is the most cost effective and appropriate allocation of funds and assistance, given the bulk of HUD's workload.

8. Why have you decided to sell houses the Department owns with elevated levels of radon?

The Department treats houses located in areas which have been identified as containing "elevated radon levels", the same as any other property within its inventory - the Department discloses the potential effects of radon the same as it disclosures other deficiencies or defects in the property. This has been a long-standing policy of the Department in selling properties that it acquires through mortgage defaults.

9. What efforts have you made to address radon problems on HUD owned housing on Seneca Indian Reservations in New York?

HUD's Chicago Regional Office is working closely with the Indian Housing Authority and EPA to address radon problems on HUD owned housing on the Seneca Indian Reservations in New York. The Seneca Indian Housing Authority in conjunction with EPA tested 100 homes for radon last winter. Of the homes tested, 15 were found to have elevated radon levels. HUD is currently meeting with EPA and the Director of the Indian Housing Authority to establish protocols for further testing and action. Dicussions between HUD, EPA and the Indian Housing Authority are on-going. The last meeting was held on May 17, 1988 with additional meetings scheduled.

Additionally, HUD's Chicago Regional Office of Indian Programs has developed a Memorandum of Understanding with EPA and the Indian Health Service on testing and mitigation of radon on Indian lands. This MOU has resulted in EPA conducting testing of over 2000 homes on three Indian reservations: the Chippewa in Minnesota, Wisconsin and Michigan; Menominee in Wisconsin; and the Ojibawa in Minnesota and Michigan. In conjunction with the testing effort, training and information on radon has been provided to Tribal Councils, PHA staff and reservation residents.

HUD is in the process of working with EPA and Housing Authorities to extend the MOU throughout Regions I-IV, which are also under the jurisdiction of our Chicago Regional Office.

10. Why doesn't the Department require that housing constructed in radon prone areas (as identified either by EPA, the U.S. Geological Survey or the States) incorporate radon mitigation techniques before HUD will provide any Federal assistance?

To date very little has been done in the area of mapping or defining specific areas prone to radon. What information we have to date on radon prone areas is very general and would not be appropriate to use in determining or establishing requirements for radon mitigation techniques. The Environmental Protection Agency (EPA) is now in the process of conducting its National Radon Assessment Program which will provide more specific information as to which areas of the country have high radon levels. The program is expected to be completed in 1991.

The Department believes that to establish requirements for mitigation of radon throughout large areas of the United States without adequate determination or justification is premature. HUD has consistently endorsed the development of a National Radon mapping program although the costs for such a program could be exceptionally high. The State of Florida recently completed a statewide radiation study which tested indoor radon radiation levels, soil radon gas levels, and geology and soil types to determine the statewide indoor radon potential. The cost of the study was $1,000,000 and examined the state using U.S.G.S. quadrangle designations which encompass approximately 56 square miles; a very broad coverage at best.

Based upon the State of Florida experience and the experience of several counties which have conducted radon mapping, at a cost of $50,000 - $100,000 per county, HUD estimates that a National radon mapping program could run in excess of $50,000,000 - $100,000,000.

THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410

June 20, 1988

Honorable Frank R. Lautenberg
Chairman, Subcommittee on Superfund
and Environmental Oversight
Committee on Energy and
Natural Resources
United States Senate
Washington, DC 20510

Dear Senator Lautenberg:

This letter provides the response of the Department to the recommendation and comments made by the GAO in its report entitled "Indoor Radon - Limited Federal Response To Reduce Contamination in Housing" (GAO/RCED-88-103).

The report attempted to generally describe the efforts of the Department of Housing and Urban Development; the Farmers Home Administration; the Environmental Protection Agency; U.S. Department of Agriculture; the National Park Service, U.S. Department of the Interior; and the Veterans Administration to reduce radon contamination in housing. The report contained one specific recommendation for the Secretary. HUD believes that there are serious errors of omission and fact throughout the report. This letter will discuss the recommendation made to the Secretary, comments made by the GAO in regard to HUD's performance in addressing radon, and six major omissions of the GAO report.

GAO RECOMMENDATION TO THE SECRETARY

The GAO recommended that the "Secretary of HUD and the Administrator of EPA define their respective responsibilities and planned actions in response to their shared legislative mandate."

The GAO recommendation fails to take into account the actions already taken and completed by both the Department of Housing and Urban Development and the Administrator of EPA in meeting the requirements of Title IV of the Superfund Amendment and Reauthorization Act of 1986, commonly referred to as SARA. The Superfund legislation clearly gives EPA the lead responsibility for establishing an advisory committee, developing an implementation plan, coordinating with HUD in conducting research, reporting to Congress and providing funding authorizations.

In response to the GAO report, HUD's Office of General Counsel rendered a legal opinion concerning the Department's authority for taking action with regard to radon. The

opinion, issued on May 20, 1988 (copy attached), confirmed HUD's position that the Superfund legislation gave the lead responsibility for establishing a program with respect to radon gas and indoor air quality to the Environmental Protection Agency. The opinion stated that HUD attorneys "know of no other statute which requires HUD to act with respect to radon, e.g., to establish standards or guidelines, perform research, require testing, abatement or disclosure, or otherwise "deal with" radon."

HUD believes that EPA has done much to meet the requirements of Title IV. As a result of EPA's efforts to meet the SARA requirements, HUD has been part of an on-going EPA led committee that has been established for coordinating radon related research and on-site testing programs. The committee called the "Interagency Committee on Indoor Air Quality (CIAQ)", has developed a plan of action for conducting and coordinating research on radon among all the Federal agencies with responsibility for this issue. The plan, published by EPA in March 1988, is entitled "Current Federal Indoor Air Quality Activities."

In addition to coordinating its radon related activities through the EPA led CIAQ, HUD is a member of the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC), under the direction of the President's Office of Science and Technology. In 1988, HUD is providing $40,000 in CPD funds to CIRRPC to support the activities of the Committee which is looking into radon and other radiation related issues.

In addition to these formal coordination mechanisms, HUD and EPA staff are in regular contact and communication to to ensure an effective and non-duplicative delivery of available program technical assistance and research funding. Most recently, HUD contributed an additional $40,000 in research funds made available from its Office of Policy Development and Research, to support an EPA led project with the National Bureau of Standards (NBS). The project will examine methods that can be used to determine the potential for radon at specific building sites. Work activities on this project are currently underway.

GAO REPORT COMMENTS

1. The GAO faults the Department for not adopting an official radon policy.

The Department has had a radon policy that can be traced back to at least 1979. The HUD policy is to provide assistance on radon matters at the request of State or local government

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officials. The assistance to be provided is determined on a case-by-case basis and is developed to meet the specific needs of the situation. Given the nature of the radon phenomenon, the scientific information available on radon and areas containing elevated radon levels, and HUD's legal authority with regard to radon, the Department believes that the best policy is to have the flexibility to design program responses which best meet the needs of each locality requesting special radon assistance.

Given the available information, HUD's radon policy gives us the flexibility to respond quickly while providing site specific responses which address local needs and conditions. This makes HUD unique among Federal agencies.

2. The GAO faults the Department for not having developed official policy for the disposition of houses with elevated radon levels.

Where the Department of Housing and Urban Development has been requested to provide assistance and has identified either specific houses with elevated levels of radon or areas where there a known elevated radon levels, the Department has a policy of using Public Disclosure Notices to inform potential buyers of the radon condition and its potential effects. HUD is the only agency with this policy of public disclosure of potential radon hazards. This is not done by the Veteran's Administration or the Farmers Home Administration, nor is it widely done by the private sector.

3. The GAO report argues that HUD's failure to respond to actual radon hazards found in HUD assisted housing might expose HUD to liability as has happened with respect to other conditions found in public housing determined to be hazardous.

The Department is always concerned about liability risks to its FHA insurance fund or to any other program. To date, case law dealing with structural or other deficiencies does not support the GAO assumption of undue risk to the Department. Rather, HUD believes that it is potentially placing itself at greater risk by broadly mandating unsubstantiated and costly actions without adoption of a Federal agency-wide radon standard with adequate scientific underpinnings to make it supportable against legal action.

To date, the Environmental Protection Agency, given a clear mandate under SARA to address radon issues, has refused to label its radon guidelines "radon standards". The GAO cited the position of one Assistant Secretary stated in a memorandum dated September 27, 1983, that the Department

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"should not be a policeman for another agency's guideline that is not enforceable by that agency." This remains the position of the Department. Not to adhere to this principle would potentially subject the Department to needless and extensive exposure and liability.

This summarizes the three major comments contained in the GAO report which the Department feels are not valid criticisms. However, HUD is more concerned about the six issues which were omitted and not addressed in the report. The six specific items which have a significant bearing on the report conclusions are identified as follows:

1. The GAO report was inconsistent in stating that HUD did not have the legal authority to take a leadership role in dealing with radon issues, while commenting that they did not believe that the authority issue prevented HUD from taking additional actions. The GAO in its report acknowledged that "HUD's specific legislative radon responsiblity is limited to a shared research responsibility with EPA through the SARA to conduct research....". HUD believes that this lack of legislative mandate limits the Department's ability to take other direct actions concerning radon. There is no legislative history which supports the GAO's assumption that HUD should do more without a clear mandate from the Congress.

   HUD believes that the budgetary and legislative actions of Congress make it clear that the mandate for dealing with the radon issue has been given to EPA and the Department of Energy. Both of these agencies have significantly greater funds budgeted to deal with radon research and related activities. DOE alone has allocated $14,000,000 for radon related activities. This figure dwarfs the $5,000,000 HUD has available to devote to safety and standards research activities which will be primarily used for lead based paint research and is almost equivalent to HUD's entire budgetary authority for research activities covering all HUD programs!

   Budget of course is not the only consideration. Our primary position is based upon legislative mandate. With a phenomenon like radon, HUD relies on the work and research of the agencies with the scientific expertise to address the problem. HUD welcomes and supports the research efforts of other Federal agencies.

   In response to the GAO report, HUD's Office of General Counsel rendered a legal opinion on this issue on May 20, 1988. That opinion confirmed HUD's position that the Superfund legislation gave the lead responsibility for establishing a program with respect to radon gas and indoor air quality to EPA. HUD attorneys "know of no other statute which requires HUD to act with respect to radon, e.g., to establish standards or guidelines, perform research, require

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testing, abatement or disclosure, or otherwise "deal with" radon."

HUD notes that the General Accounting Office, in its report came to this same conclusion "...with the exception of the SARA research requirement that HUD shares with EPA, we found no statute requiring specific HUD action on radon." (GAO/RCED-88-103,B-223233, April 1988, page 38.) Therefore, without a specific Congressional mandate, HUD believes that it is potentially placing itself at risk for lawsuit or other action by affected parties.

2. The GAO report contains a serious misconception on how new single family construction is processed for mortgage insurance, totally overlooking statutory reciprocity requirements. An average of 55% of HUD's multi-million dollar insurance program is processed by accepting Veteran's Administration (VA) approvals under a long standing system of "reciprocity". In large volume offices, this figure can run as high as 90%. Since 1983, the Secretary of HUD, Secretary of Agriculture and the Administrator of the Veteran's Administration have been statutorily required to accept the other agency's housing subdivision approvals. The statute prohibits the agencies from looking behind the other's approval.

This process is particularly relevant in areas identified as having elevated radon levels since the VA does not consider radon to be an issue for Federal intervention. Therefore, if the agency does not take radon into account in its appraisal process, given reciprocity, HUD has no option other than to accept VA approved properties under its mortgage insurance program.

The significance of the VA-HUD reciprocity can be seen when one analyses the volume of housing units HUD processes under this arrangement. In 1987, of 118,000 cases processed for new single family construction endorsements for HUD insurance, 65,000 were processed via VA Certificates of Reasonable Value (CRV). Looking at these figures on a local level, HUD's Camden, New Jersey Office, a low volume office, processed almost 80% of its insurance workload in 1987 under the VA CRV reciprocity agreement. For HUD's Denver Office, a medium volume office, 74% of the insurance endorsements were VA conversions. HUD's Phoenix Office, a high volume office, issued over 87% of its insurance endorsements based upon VA determinations of site acceptability and value. In March of this year, Arizona Senators McCain and DeConcini reported to HUD that there were 500 VA CRV in Arizona with approximately 10,000 lots outstanding which would be converted to HUD insurance.

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HUD recently has attempted to limit the use of CRV and Master Certificates of Reasonable Value (MCRV) as evidence of subdivision approval, but this has been strongly challenged by the National Association of Home Builders (NAHB) as representatives of the home building industry. At this time, the Department has received letters from Senators and Representatives, and members of the mortgage and banking industry, and building industry supporting continuance of the reciprocity process. Congressional representatives are now actively seeking to clarify reciprocity to assure the continued practice and use of CRV and MCRV. The NAHB, with Congressional support, has appealed to the Department to extend use of VA CRV and MCRV to some time in the future so that commitments made can still be honored.

GAO investigators were repeatedly told about the reciprocity process and the significant impact it has on HUD's entire insurance program. The GAO report does not even acknowledge the process, nor is there any indication that this process was discussed with VA officials. In fact, in discussing VA, the investigators have ignored the radon issue. By omitting this pertinent fact, the GAO has in essence endorsed the VA's conclusion that the "VA is not involved with radon issues and considers identified radon hazards to be a State and local issue".

3. The GAO totally fails to take into account the significant assistance that HUD provides to local officials in their attempts to learn more about and deal with local radon issues. In addition to its coordination activities with other Federal agencies, HUD has taken an active role in meeting the intent of SARA and furthering the knowledge that we have about radon. These activities include:

Assisting States and Local Governments. Activities of States and local governments, particularly those with the most active programs are informally monitored to obtain information which can be shared with other States and local governments on radon related matters. Additionally, HUD staff is in the process of evaluating an on-going project of the Florida Institute of Phosphate Research. The institute has built three structures on radon emitting reclaimed phosphate lands in an attempt to demonstrate methods for preventing radon entry. The Institute is also working with Florida state officials to develop a building code for radon resistant residential construction.

Providing Site Development Guidance and Controls. HUD has worked with EPA in the delivery of site specific technical assistance in such areas as the State of Florida; Butte-Anaconda, Montana; Edgemont, South Dakota; and Bethlehem, Pennsylvania.

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Survey of State Radon Activity. HUD surveyed selected States including those known to have radon problem areas and those cooperating with EPA in a coordinated State mapping program. The survey concentrated on soliciting information on the State's organizational structure for addressing radon, proposed and existing legislation establishing a radon standard, laboratories and mitigation contractors and public information systems.

Dissemination of Information. HUD has taken an active role in disseminating information on radon. Over the last few years HUD has made it a policy to distribute any new materials or information on radon and radon related research activities to State and local officials and HUD Field staff. A list of the publications is attached.

HUD has also provided in-depth technical reviews and critiques to three draft EPA publications on radon prior to final printing and national distribution.

4. The GAO sites HUD for failing to address radon problems on HUD owned housing on Seneca Indian Reservations in New York. The GAO report does not recognize the work of HUD's Regional Office in providing assistance to the Seneca Indians in New York. HUD has been working closely with the Indian Housing Authority and EPA to address radon problems on HUD owned housing on the Seneca Indian Reservations in New York. The Seneca Indian Housing Authority in conjunction with EPA tested 100 homes last winter. Of the homes tested, 15 were found to have elevated radon levels. HUD is currently meeting with EPA and the Director of the Indian Housing Authority to establish protocols for further testing and action. Discussions between EPA, HUD and the Indian Housing Authority are on-going. The last meeting was held on May 17, 1988 with additional meetings planned.

Additionally, HUD's Regional Office of Indian Programs has developed a Memorandum of Understanding with EPA and the Indian Health Service on testing and mitigation of radon on Indian lands. This MOU has resulted in EPA conducting testing of over 2000 homes on three Indian reservations: the Chippewa in Minnesota, Wisconsin and Michigan; the Menominee in Wisconsin; and the Ojibawa in Minnesota and Michigan. In conjunction with the testing effort, training and information on radon has been provided to Tribal Councils, PHA staff and reservation residents.

HUD is now in the process of working with EPA and the Indian Housing Authorities to extend the MOU throughout Regions I-IV.

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5. The GAO presents an incomplete review of the Federal government's radon activities. HUD believes the GAO does not present a complete portrayal of Federal government's radon activities by failing to recognize the significant work of the Department of Energy which has a radon research budget twice that of EPA. (1988 estimates are $14.1 million for DOE and $6.0 million for EPA.) DOE's research includes (1) development of methods for identifying potential high-risk areas; (2) development of improvements in radon measurement technology; (3) development and evaluation of mitigation technologies; (4) conduct of health studies; and (5) risk assessment studies.

   The GAO also fails to recognize the work of the U.S. Geological Survey (USGS) which is conducting experimental soil analysis work to identify potential radon problem areas. To date very little mapping has been done to define specific areas prone to radon. The Environmental Protection Agency is now in the process of conducting its National Radon Assessment Program which will provide more specific information on which areas of the country have high radon levels. The program is expected to be completed in 1991.

   HUD believes that to establish requirements for mitigation of radon throughout large areas of the United States without adequate determination or justification is premature, costly and subject to lawsuit. HUD has consistently endorsed the development of a National Radon mapping program although costs for such a program could be quite high. The State of Florida recently completed a statewide radiation study which tested indoor radiation levels, soil radon gas levels, and geology and soil types to determine the statewide indoor radon potential. The cost of the study was $1,000,000 using quadrangle designations which encompass approximately 56 square miles. Based upon the cost of the State of Florida's program and several counties that have conducted radon mapping, at a cost of $50,000-$100,000 per county, HUD estimates that a National radon mapping program could run in excess of $50,000,000-$100,000,000.

6. The GAO close-out meeting with HUD did not adequately reflect the findings in the published GAO report. GAO did not seek or obtain official agency (HUD) comments on the report. The GAO close-out was completed verbally with GAO personnel reciting selected sections from the draft report as they applied to HUD. Two specific issues that HUD was not informed about in the oral close-out were: the radon identification problems in Indian Housing; and the purported lack of consistent HUD disclosure statement policy (particularly in the State of Colorado where EPA had just released radon mapping data.) During the course of the close-out meeting, GAO gave the Department the impression

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that it was making satisfactory progress in addressing the radon issue and that the policy of addressing radon on a case-by-case basis was adequate. Had HUD been able to review the complete report with GAO staff the omissions and misconceptions found in the report would have been eliminated or corrected.

Very sincerely yours,

Samuel R. Pierce, Jr.

NATIONAL PARK SERVICE
INDOOR RADON PROGRAM
May 17, 1988

INTRODUCTION

The Public Health Service (PHS), Centers for Disease Control (CDC), and the Environmental Protection Agency (EPA) are concernced about the potential for increased health risk of developing lung cancer by persons exposed in homes with radon concentrations greater than average background levels. Radon may be responsible for causing 5000 to 20,000 lung cancer deaths in the United States each year. Radon is an odorless, tasteless, colorless, radio-active gas and is present almost everywhere, producing an average indoor background level of approximately 2.0 picocurie per liter (pCi/l). A picocurie is a measurement of radiation. EPA estimates 5 to 10 million homes nationwide may have a problem that should be remedied.

NPS PROGRAM

In order to provide safe, healthful housing and workplaces for its employees, the NPS launched a Servicewide Indoor Radon Program in January 1987. The program is being conducted under an Interagency Agreement with EPA with technical support from CDC and has the following objectives:

- Obtain consistent radon measurements that produce accurate and reproducible results within a reasonable time and for a reasonable cost.
- Provide a sound strategy for screening and follow-up testing of permanent and seasonal housing and administration buildings.
- Provide national guidelines about the need for mitigation of building radon levels.

A copy of the EPA/CDC pamphlet "A Citizens Guide to Radon - What It Is and What To Do About It" was reprinted and distributed to all homes being tested. This pamphlet explains the radon problem and outlines appropriate actions at various levels of exposure. A companion booklet by EPA "Radon Reduction Methods - A Homeowner's Guide" was distributed to parks where homes needed mitigation. The booklet describes methods that have been tested successfully - by EPA and/or other research groups - on houses with high indoor radon levels. Copies of EPA's "Radon Reduction Techniques for Detached Houses - Technical Guidance" were distributed to all parks having mitigation activities.

Visits were made to many parks by Regional Environmental Sanitation Consultants and Housing representatives to explain the need for, and details of, the program.

STRATEGY FOR ASSESSING RADON LEVELS

A three-step measurement strategy for assessing radon levels was used: 1) A screening measurement was made in all permanent housing to quickly and inexpensively determine whether a building had the potential for causing high exposures to the occupants. 2) If the screening measurement exceeded the EPA's remedial action guideline of 4.0 pCi/l, additional follow-up measurements were made to estimate the health risk to the occupants and to assess the urgency for mitigation. If the screening result was below the target limit, selected follow-up measurements may be made at a later time. 3) Administration buildings and seasonal housing were tested where measurements of permanent housing indicated potentially high radon levels. Selected testing was made in the remainder of the areas to obtain representative values for the entire NPS system.

Step One: Screening - Permanent Housing

Screening measurements in the lowest liveable space, were made with charcoal canisters under closed house conditions to maximize the probability of finding elevated radon concentrations. Approximately 1/3 of the screening measurements were made in unfinished basements and 2/3 were made in first floor living spaces (eg. bedroom, living room, den, office, etc.). The guidelines contained in EPA's "Interim Protocols For Screening and Follow-up Radon and Radon Decay Measurements" were used as a basis for taking measurements.

Charcoal canisters were analyzed by the EPA Eastern Environmental Radiation Laboratory in Montgomery, Alabama.

Table No. 1 summarizes the screening results for 3128 buildings - reflects data received through February 29, 1988.

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Table No. 1

NPS INDOOR RADON PROGRAM

Screening Measurements Summary

Region	Radon Values (pCi/1) 0-3.9	4-10	>10-20	>20-50	>50	Total Bldgs. 4.0 or higher	Total Bldgs. Screened
Pacific Northwest (Seattle)	123	3	1	0	0	4	127
Alaska (Anchorage)	53	9	6	0	0	15	68
North-Atlantic (Boston)	135	22	6	2	0	30	165
National Capital (Washington, D.C.)	59	16	5	0	2	23	82
Midwest (Omaha)	57	14	6	5	0	25	82
Southwest (Santa Fe)	189	30	3	0	2	35	224
Southeast (Atlanta)	341	38	8	3	0	49	390
Mid-Atlantic (Philadelphia)	188	30	10	2	2	44	232
Western (San Francisco)	931	62	5	3	1	71	1002
Rocky Mountain (Denver)	534	131	49	32	10	222	756
	2610	355	99	47	17	518	3128
	(83.4%)	(11.3%)	(3.2%)	(1.5%)	(0.05%)	(16.6%)	

About 350 concession-owned buildings were also included in the screening phase. The results are not included in the above data.

Although the charcoal canister is a good passive sampler, it is not 100% efficient. There is no significant difference between a result of 3.9 and one at 4.1 pCi/l. It may be important to provide some additional long-term measurements for buildings with initial levels only slightly below 4.0 pCi/l.

Step Two: Follow-up Measurements

A follow-up measurement strategy was developed by CDC to obtain an estimate of the representative radon levels in residences included in the NPS survey.

	Winter Screening Measurements	Time Frame for Follow-up Measurements
Tier I	4 - 20 pCi/l	Spring and Summer
Tier II	>20 - 50 pCi/l	Spring
Tier III	>50 pCi/l	Immediate to confirm

In conducting the above strategy follow-up measurements were taken with at least two charcoal canisters placed in different living areas of the residence under closed house conditions.

Step Three: Screening of Seasonal Housing and Administration Buildings

In parks with no housing or where screening measurements of permanent housing indicate potentially high radon levels, seasonal housing units, office buildings, and other administration buildings are being screened as follows:

Screening Results Permanent Housing By Park (pCi/l)	Number to be Tested Seasonal Housing	Administration Buildings
all <4.0	none	
1 or more >4.0	- all in problem area - random sample others	
no permanent housing	random sample at least one	

The follow-up protocol for seasonal housing was the same as for permanent housing. The results from each set of follow-up measurements were evaluated along with the screening measurement to determine the need for mitigation.

Since the use of charcoal canisters shortened the time required for sampling, the NPS had results for most buildings by early fall, so that the extent of the indoor radon problem could be evaluated quickly. Some flexibility is maintained within the sampling strategy to allow for additional measurements when there are doubts about whether mitigation is necessary in a particular structure and for immediate action in structures where extremely high radon levels are measured.

Buildings Requiring Mitigation

Follow-up measurements taken in the suspect buildings verified that 358 will require mitigation to reduce radon levels. Table No. 2. presents the distribution of the buildings needing attention.

Table No. 2

NPS INDOOR RADON PROGRAM
Buildings Requiring Mitigation

Representative Radon Value (pCi/1)

Region	4-10	10-20	20-50	50	Total	Percent
Pacific Northwest	3				3	0.8
Alaska	8	6			14	3.9
North Atlantic	15	4			19	5.3
National Capital	12	2	1	1	16	4.5
Mid West	12	4	4		20	5.6
Southwest	14		1	1	16	4.5
Southeast	18	2	1		21	5.9
Mid Atlantic	21	6		1	28	7.8
Western	25	1	1	1	28	7.8
Rocky Mountain	115	50	19	9	193	53.9
Total	243 (67.9%)	75 (20.9%)	27 (7.5%)	13 (3.6%)	358	100.0

Evaluation of Data:

The Rocky Mountain Region has the highest number of buildings 193 (53.9%) which require mitigation. Yellowstone, Glacier, and Grand Teton National Parks have the majority of the Rocky Mountain Region buildings.

The remaining buildings are fairly evenly distributed throughout the country.

The 358 Buildings are located in 85 different parks.

There were 179 buildings with screening measurements >=4.0 pCi/l, but follow-up measurements resulted in these having representative radon values less than 4.0 pCi/l as follows:

Table No. 3

Number of Buildings	Representative Radon Value (pCi/l)
83	3.0 - 3.9
82	2.0 - 2.9
14	1.0 - 1.9
179	

There have been a number of buildings where the screening value was <4.0 pCi/l but subsequent testing has identified values >=4.0. An unknown number of the above buildings might be in this situation.

4.0 pCi/l - A Remedial Action Guideline

In the "Citizens Guide to Radon" occupants are advised to take action on a tiered time schedule based on radon levels of 4.0 pCi/l or higher. While EPA and CDC feel that no level of radon can be considered "safe", the 4.0 pCi/l identifies a threshold of concern and is simply a recommended target limit to achieve with corrective action. This level is based both on health considerations and on the limitations of current building technology in economically reducing radon levels below this level.

Training

Training of NPS staff on radon diagnostic measurement procedures and mitigation methods to develop our own resources of expertise has been given the highest priority because the availability of expert radon contractors

limited. Priority has been given staff located in parks with buildings requiring mitigation. Over 100 Park and Regional staff have received training at general courses offered by EPA and specialized hands-on-training by expert radon contractors in Glacier, Yellowstone, Sequoia, Denali and Valley Forge National Parks. This capability should provide the NPS with capability to handle most problems. Assistance is being obtained from EPA and expert contractors for difficult problems.

Budget

In FY88 the NPS will expend approximately $500,000 for radon mitigation which will provide:

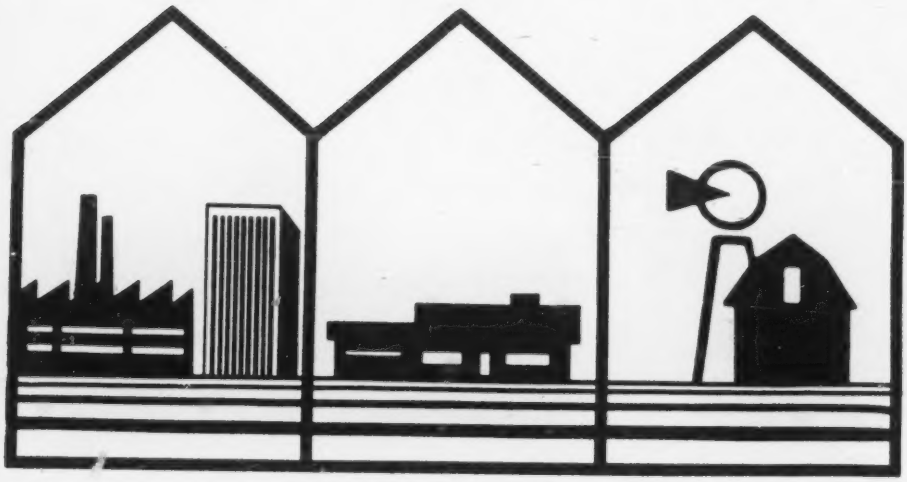
- Training and consultation by expert contractors.
- Interagency Agreements with EPA and DOE for laboratory testing, monitoring, and technical assistance.
- Purchase of specialized radon testing instruments.
- Distribution of funds was based on the public health premise that buildings with the highest levels or radon should be mitigated first. The amount of funds available will probably be sufficient to mitigate the 115 buildings having representative radon values in excess of 10.0 pCi/1.

In FY89 the NPS intends to use available funds to mitigate the estimated balance of about 243 buildings which have radon values between 4.0 and 10.0 pCi/1.

Summary

Work is progressing on the buildings requiring mitigation. A comprehensive post mitigation testing program is being developed. Data will be collected on the cost and effectiveness of mitigation techniques used in NPS buildings.

Prepared by Environmental Sanitation Program, National Park Service.



Statement of the

NATIONAL ASSOCIATION OF REALTORS®

THE WORLD'S LARGEST TRADE ASSOCIATION

TO: SENATE ENVIRONMENT SUBCOMMITTEE ON SUPERFUND AND ENVIRONMENTAL OVERSIGHT

SUBJECT: U.S. GENERAL ACCOUNTING OFFICE REPORT ON INDOOR RADON

DATE: MAY 18, 1988

STATEMENT

on behalf of the

NATIONAL ASSOCIATION OF REALTORS®

BEFORE THE

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

SUBCOMMITTEE ON SUPERFUND AND ENVIRONMENTAL OVERSIGHT

May 18, 1988

INTRODUCTION

Good Morning. My name is Robert F. Ferguson, Jr. from Long Branch, New Jersey. I am the 1988 Chairman of the REALTORS® Legislative Subcommittee on Energy, Environment, and Development and the Executive Vice President of the NEW JERSEY ASSOCIATION OF REALTORS®. On behalf of the more than 800,000 members of the NATIONAL ASSOCIATION OF REALTORS®, I would like to thank the Chairman and the members of the Superfund and Environmental Oversight Subcommittee for the opportunity to present our views on the issues surrounding the recent General Accounting Office Report on Indoor Radon.

The NATIONAL ASSOCIATION OF REALTORS® (NAR) continues to play a very active and positive role in the radon issue. Our radon awareness program began in August of 1985, well before radon gained national attention. NAR produced and distributed thousands of radon information kits to REALTORS® and the public one year prior to the publication of the U.S. Environmental Protection Agency's (EPA) radon booklets. As part of NAR's continued dedication to provide its membership with up-to-date information on radon, I accompanied Senator Lautenberg and others to Sweden on the radon fact-finding mission in 1986.

NAR has met with officials of the EPA on numerous occasions to discuss various technical and public awareness problems related to radon. During the past three years, EPA has conducted radon seminars at the major REALTOR® conventions and will continue to do so in the future. In 1986 the REALTORS® Hazardous Substances Task Force produced a manual to educate REALTORS® on a variety of hazards they are likely to encounter in the field, including radon.

The NATIONAL ASSOCIATION OF REALTORS® strongly believes that every individual should have the opportunity to live in safe and decent housing. We want to sell a safe product. A public health issue, such as radon, is obviously a priority for the real estate industry because we are concerned with the potential long-term health effects associated with radon. We are committed to taking an active role in attempts to reduce the potential health threat that radon gas may pose, while at the same time protecting the value and salability of homes. Attached to my remarks today is the official NAR policy on radon gas, revised as of May 9 by the NAR Board of Directors.

Impact of the Radon Issue on Real Estate Transactions

Property Values

Much attention has been paid to concerns over the presence of radon and its relation to property values. We have not seen a major decline in property values in those areas associated with elevated levels of naturally-occurring radon. This is not surprising, because there are hundreds of factors that

enter into the value of a home. In some areas, radon is one of those factors. Radon problems can usually be mitigated for an approximate cost of between two hundred and two thousand dollars. This is relatively modest when compared to the median price of a home ($88,700 for an existing home and $101,100 for a new one). Homes containing excessively high levels of radon are likely to be removed from the market until an appropriate mitigation strategy has been developed and completed. Thus, the final market value may not reflect any reduction in price due to radon. Recent surveys by the Pennsylvania and New Jersey Associations of REALTORS® do not indicate any widespread property value declines as a result of naturally-occurring radon.

Delays in Closing

The major impact radon has on the real estate industry is the effect of radon monitoring prior to closing on a property. In those areas of the country where radon is a prominent issue, it is becoming more common for a prospective buyer to request a radon test prior to closing. Often, testing is carried out during the time it takes for the mortgage application, property appraisal, survey, etc. to be completed. However, problems can occur when there are delays in obtaining testing equipment and in ensuring a timely laboratory analysis of the samples taken. These problems can be compounded if an unacceptable radon level is found and retesting and mitigation are required prior to closing.

The GAO Report

We reviewed the recent GAO report on Indoor Radon with great interest. The NATIONAL ASSOCIATION OF REALTORS® believes that a major nationwide radon policy initiated by the Department of Housing and Urban Development (HUD) or other federal agencies that might involve mandatory disclosure or contingencies relating to mortgage financing may be premature at this time. We believe that the research and ongoing program and policy development at the EPA and the Department of Energy (DOE) will yield results in the not-too-distant future that will provide the direction society needs.

While some have criticized EPA for not responding quickly, it should be pointed out that three years ago the average citizen had never heard of radon. As a result of the discovery of the Watras home, and the media coverage and investigation, radon became an issue overnight. During the last three years, EPA, with little money and limited Congressional involvement, has developed research programs and has issued at least 6 booklets to help homeowners, builders, real estate professionals and others deal with the radon problem. The EPA has established a program whereby radon testers are "graded," if you will, on their ability to measure indoor radon levels. We recognize there are plenty of areas that need improvement, however, EPA has taken a strong leadership role in radon policy development and should continue to do so. We also support EPA's continuing relationship with other federal agencies that need guidance on radon monitoring and mitigation.

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The results of the current EPA and DOE programs are expected to be relevant to both homes under construction and existing homes. We have no evidence to indicate that a "HUD home" has any unique characteristics that would warrant a special program solely directed at that type of housing. The information and program development coming from EPA and DOE will be useful to homeowners around the country. Additionally, the unique circumstances surrounding both the behavior of radon gas and its control may require the development of new means of public education and exposure minimization. It is clear that massive radon programs developed and enforced by each federal agency are not necessarily the way to appropriately protect the public health. EPA's current guidance documents provide assistance on radon testing and mitigation to all homeowners, regardless if the owner is a public agency or if a home was purchased with federally-assisted financing.

NAR understands the desire of some in government to urge individual agencies to act. That is why the NAR is pleased with the language drafted by Senator Lautenberg that has been included in S. 1629, the Indoor Air Quality Act. This language specifically maps out how HUD should work with EPA in demonstrating radon measurement and mitigation techniques in a limited number of projects. We believe this approach is an appropriate response to the recommendations of the GAO report. We commend Senator Lautenberg for his actions.

Current Radon Legislation

It is going to require some time for society, Congress, and the EPA to determine the best course of action to minimize the public risk to radon gas. Legislation such as S. 744, which passed the Senate, and H.R. 2837 provides additional resources to quantify and limit public exposure to radon. Implementation of the programs envisioned in these bills would provide us with information needed to make an intelligent decision about the value of other federal initiatives. For example, these bills:

1) authorize EPA to establish a national database and clearinghouse on radon;

2) require EPA to conduct a study of the effectiveness of a variety of radon mitigation measures;

3) greatly increase funding available to help states expand radon monitoring capabilities, public information programs, and equipment purchases; and

4) provide assistance in the establishment of much needed training and certification programs for testers and mitigation contractors.

Enactment of such legislation would help ensure that testers and mitigation contractors can be appropriately trained and will be available. This is especially important if and when it is determined that additional

federal initiatives are warranted. Schools and other buildings that require the use of asbestos abatement contractors are finding that compliance with certain state, local, or federal laws is extremely difficult if not impossible because artificial deadlines were imposed without having enough adequately trained personnel to handle the job. Enactment of S. 744 or H.R. 2837, or similar legislation could make a valuable contribution to efforts to minimize public exposure to radon while establishing an "infrastructure" to deal with future objectives of federal or state radon control programs.

Another option for Congressional consideration is the use of tax credits to further encourage homeowners to implement radon minimization strategies. The value of such an approach was demonstrated in the federal energy tax credit program which encouraged Americans to make their homes more energy efficient. Several bills have been introduced in Congress (S. 1546 in the 99th and H.R. 1108 in the 100th Congress) utilizing the tax credit approach. NAR is a strong supporter of S. 756 which allows certain radon mitigation costs to qualify for the medical care expense deduction for income tax purposes. We have continued to assist the bill's author, Senator Lautenberg, in attempting to ensure passage of this legislation.

In conclusion, I would also like to inform the Subcommittee today that the NATIONAL ASSOCIATION OF REALTORS® has formed a Real Estate Workgroup with the National Association of Homebuilders and the EPA to discuss a variety of technical issues relating to radon monitoring and mitigation. We have high hopes that the workgroup will focus on a number of problems raised by

Senator Lautenberg and the GAO report. HUD's participation in this forum would be welcome.

We appreciate this opportunity to present testimony on the radon gas issue and look forward to working with this subcommittee as it continues its deliberations.

APPENDIX

POSITION STATEMENT
OF THE
NATIONAL ASSOCIATION OF REALTORS®
ON
RADON GAS
REVISED AND APPROVED BY THE BOARD OF DIRECTORS, MAY 9, 1988

The NATIONAL ASSOCIATION OF REALTORS® believes that all Americans are entitled to enjoy an indoor living environment where risks to health and welfare from pollution are minimized. We support increased efforts by both the private and public sectors to characterize and evaluate the extent of indoor air quality problems and to encourage the development of meaningful and affordable monitoring and mitigation strategies.

Thus, the NATIONAL ASSOCIATION OF REALTORS® supports:

1) Federal legislation that provides further funding for indoor air quality research, such as S. 744;

2) Education of homeowners on the need to monitor and mitigate indoor air quality problems;

3) Efforts to educate homeowners as to their responsibility to identify and disclose to brokers or agents any known environmental hazards presenting a significant risk to health;

4) Efforts by the state associations of REALTORS® to determine the desirability of disclosure language in listings and contracts of sale;

5) Development and dissemination of techniques and technologies that would help reduce indoor air quality problems in new home construction, and research and development of consumer products and building materials that minimize contributions to indoor air quality problems;

6) Education of building owners to increase their knowledge and ability to operate and maintain HVAC systems in a manner that minimizes indoor air quality problems;

7) Efforts to educate the public on the risks of indoor air contamination relative to other risks a typical homeowner is exposed to;

8) The development by the U.S. Environmental Protection Agency of programs at the state or local level to train or certify personnel for the testing and mitigation of indoor radon problems;

9) Investigation of the quality of radon gas information available to the public to determine what additional materials need to be provided to homeowners by the government or the private sector to adequately characterize the risks of and minimization strategies for inadequate indoor air quality.

The NATIONAL ASSOCIATION OF REALTORS® pledges to:

1) Continue to provide educational programs and materials on indoor air quality to REALTORS®;

2) Continue to meet with the U.S. Environmental Protection Agency, the Department of Energy, and other federal government agencies that have jurisdiction over the radon issue;

3) Establish the Real Estate Workgroup to build a bridge between real estate trade associations and the various U.S. government agencies involved with radon minimization;

4) Cooperate with federal, state and local government agencies attempting to identify and quantify the extent of the radon problem in areas of concern;

5) Support scientific research that will improve our understanding of indoor air quality problems and will increase our ability to develop accurate and affordable monitoring and mitigation strategies;

6) Develop materials for the media which explain the role of the real estate agent with regard to environmental issues;

7) Encourage state associations to explore incorporation of material relating to indoor air quality into continuing education courses;

8) On request, develop media kits on radon issues by local boards.

Consumer Federation of America

S T A T E M E N T

before the

SUPERFUND AND ENVIRONMENTAL OVERSIGHT SUBCOMMITTEE

of the

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

on

INDOOR RADON: LIMITED FEDERAL RESPONSE TO REDUCE CONTAMINATION IN HOUSING

by

SUSAN A. WEISS

Legislative Representative

Consumer Federation of America

May 18, 1988

1424 16th Street, N.W., Suite 604 • Washington, D.C. 20036 • (202) 387-6121

Mr. Chairman and Members of the Subcommittee, my name is Susan A. Weiss. I am Legislative Representative for the Consumer Federation of America, which represents more than 240 local, state and national organizations with a combined membership of over 50 million people.

I want to thank you for the opportunity to testify today concerning the recent report by the General Accounting Office examining federal response to radon contamination in housing. Consistent with CFA's long standing policy to assure that the government does not abandon its commitment to decent and safe housing, I would like to focus my remarks on the response -- and responsibility --of the U.S. Department of Housing and Urban Development (HUD) to radon contamination.

Indoor air quality is a key health and safety priority for CFA. For many years now, we have identified indoor air pollution as the number one hidden health threat to our nation, where people are estimated to spend up to 90% of their time indoors. This nation has spent billions of dollars to improve the quality of outdoor air. Yet, until relatively recently, indoor air pollution has received little national attention.

Thanks to your vigorous leadership efforts, Mr. Chairman,

and those of your colleagues, this has begun to change. Congress has started to focus the nation's attention --and resources -- on radon, for example, mandating research (the Superfund Amendments and Reauthorization Act of 1986 (SARA)) and stimulating development and expansion of state and local programs addressing radon testing and mitigation (S. 744, the "Radon Program Development Act of 1987"). Homeowners are beginning to test their homes and mitigate hazards. State and local governments, albeit in varying degrees, are responding with programs designed to encourage radon reduction in the home. Increased press attention has continued to heighten public awareness. Nonetheless the GAO report reveals that the nation's lead housing agency, with the potential to impact millions of homes and many millions of Americans, has been asleep at the wheel.

With an estimated 5,000 to 15,000 cancer deaths attributed annually to radon, exposure to elevated levels of radon in the home must be reduced for all Americans -- regardless of income. Absent HUD action to insure such a response in federally assisted housing, the risk of exposure to radon contamination is not likely to be reduced for American families with low-incomes. Further, HUD's failure to respond has created a leadership vacuum in terms of the housing field. Although a 10 state study released by EPA last year estimated that one in five homes may exceed the 4 picocuries per liter action level set for radon, many consumers still remain unaware of the radon hazard or lack the resources to address it. Others may chose to ignore what they cannot see or

feel. With this invisible but potentially fatal threat, there must be visible, public leadership to demonstrate the significance of the problem in the home -- and the necessity for response. No agency has a greater responsibility than HUD to take steps to reduce radon exposure for low-income families and at the same time to assume this leadership role for the nation's housing market.

Yet, according to the GAO report, instead of acknowledging the problem and setting priorities for action, HUD's approach has been to bury its head in the sand. The agency has not only shirked its leadership responsibilities, it has not even managed to develop a policy for response. It has left its field offices and local housing authorities without guidance as to how to respond. Despite HUD's mandate to assure adequate and safe housing, it is evident from the GAO report that HUD, in the case of radon, must have its head yanked from the sand. It again must be forced into action. Establishing a radon policy is critical, carrying it out is imperative. Absent a directive from Congress, this is not likely to occur.

CFA generally supports the GAO recommendations for activities to be undertaken by HUD, particularly as interim measures. As part of a policy effort, HUD clearly though must be required to establish priorities for action. As recommended by GAO and recognized under SARA, preventive measures for new construction is a logical place to begin. According to EPA, it is

five to six times cheaper to install radon-resistant features during construction than to take these measures after completion in order to reduce elevated radon levels. It is also apparent from the report that HUD must be forced to comply with the Congressional directive under SARA to work with EPA on methods to assess the potential for radon contamination in new construction and to design preventive measures. Implementation of this directive would certainly be a significant step forward to limit radon exposure in new units. At the same time, however, HUD must look at strategies to address radon contamination in existing housing units under its various programs.

While we recognize that reducing radon contamination in existing housing is a massive and potentially costly undertaking, avoiding the problem will not alleviate it. In fact, failure to respond to elevated radon levels is likely to assure a heavy toll in terms of lives lost and in health care costs incurred down the road, because these programs impact so immediately and directly on the lives and health of millions of low-income American families, in particular children. Absent a HUD initiative to address radon contamination, there is likely to be little or no protection for (1) the nearly 6 million single family dwellings insured under HUD's Home Mortgage Insurance Program; (2) the approximately 800,000 families receiving assistance under the Section 8 Low Income Assistance Program; and (3) the over 1.3 million Public and Indian housing units which are home to more than 3 million Americans.

Among the priorities to be set by HUD should be an aggressive policy towards reducing radon contamination in Public and Indian Housing. The notice to public housing tenants about testing procedures, as suggested by GAO, is insufficient; a strategy for testing and mitigation must be considered. The explicit intent of the Public and Indian housing program is to assure decent, safe and sanitary housing for low-income families. The Department provides funds and standards to local housing authorities to carry out this mandate. While it seems only obvious that "safe" housing would contemplate protection from exposure to elevated radon levels, HUD may need such explicit direction from Congress. Assessment of the magnitude of the problem should also be among the first steps, as well as testing and abatement information to all local housing authorities. Another action that might be considered is incorporating radon testing and mitigation requirements in certain cases when modernization funds are granted.

HUD already has mechanisms in place to assure the adequacy of insured single family homes and Section 8 housing units. To obtain insurance under the single family mortgage insurance program, houses must meet minimum property standards. There are housing quality standards that must be satisfied for units to qualify for approval under the Section 8 Low Income Housing Assistance Program. At a minimum, HUD should be required to examine these standards to assess inclusion of radon testing and

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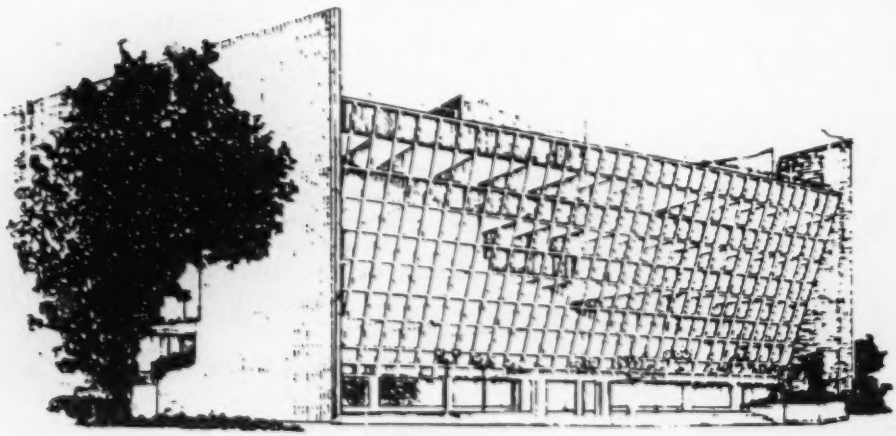
mitigation for these respective programs. As with Public Housing, HUD's mandate under Section 8 is to assure decent, safe and sanitary housing. Simply put, HUD cannot meet that requirement and ignore the radon problem. While we recognize the shortage of decent housing and do not want to discourage participation in the Section 8 program or any other federally assisted program, there must be a balance -- and a recognition of the significant and costly health risk posed by radon. Unless exposure to radon contamination is reduced, the costs in terms of lives and health care dollars are bound to increase.

HUD must be prodded into action. We urge that this Subcommittee continue to scrutinize the agency to assure that a response to radon contamination is forthcoming, both in terms of policy and implementation. HUD can no longer be permitted to retreat from this significant health risk to all Americans.

Statement of the NATIONAL ASSOCIATION OF HOME BUILDERS before the

Committee:	SENATE SUBCOMMITTEE ON SUPERFUND AND ENVIRONMENTAL OVERSIGHT
Subject:	GENERAL ACCOUNTING OFFICE REPORT ON THE FEDERAL RESPONSE TO RADON GAS
Witness:	BARRY ROSENGARTEN
Date:	MAY 18, 1988
Place:	406 DIRKSEN SENATE OFFICE BLDG



National Housing Center
15th and M Streets, N.W.
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THE NATIONAL ASSOCIATION OF HOME BUILDERS

The National Association of Home Builders (NAHB) represents more than 150,000 member firms located in every state of the U.S., the District of Columbia and Puerto Rico. NAHB member firms employ over 8 million persons and can be found in every type of community across the nation, representing rural and urban interests. The cohesiveness of the organization is maintained through a network of 780 local and 43 state affiliated associations.

While the association was founded to represent the small home builder, it has expanded through the years to include the diversified builder. Currently the average builder member participates in 2 or more different types of building activities, which include remodeling, commercial and industrial building, and single and multifamily housing.

HOUSING AND THE ECONOMY

Housing is one of the key indicators of the health and vitality of the nation's economy and the industry itself is one of the largest contributors to the country's economic system.

In 1987 alone, the value of all new housing totaled $139.6 billion, resulting in an estimated 2.4 million man years of direct employment. Those housing starts, numbering 1.617 million, represent a tax contribution to local governments of $1.5 billion. During the same period, housing and housing-related industries contributed approximately $228.5 billion to America's economy - which translates to about 5% of the gross national product (GNP).

The housing industry also plays an important role in the economic stability of many other industries, including real estate, architecture, banking institutions, housing manufacturers and the myriad of housing supply industries.. For this reason, the ripple effect of the housing industry on the nation's economy is substantial.

STATEMENT OF

THE NATIONAL ASSOCIATION OF HOME BUILDERS

BEFORE THE

SENATE SUBCOMMITTEE ON SUPERFUND AND ENVIRONMENTAL OVERSIGHT

ON

GENERAL ACCOUNTING OFFICE REPORT ON THE FEDERAL RESPONSE TO RADON

MAY 18, 1988

Mr. Chairman, members of the Subcommittee, good morning. My name is Barry Rosengarten and I am a builder from Perth Amboy, New Jersey and a past-president of the New Jersey Home Builders Association. On behalf of the more than 154,000 members of the National Association of Home Builders (NAHB), I am pleased to have this opportunity to offer our views on the role of the federal government in dealing with radon gas.

NAHB just completed its Spring Board of Directors Meeting here in Washington, D.C. At the Board Meeting, we created a comprehensive policy outlining NAHB's response to the issue of radon gas infiltration in residential homes. This policy was the product of a special Builder Task Force on Radon created last year -- I am a member of this task force.

Since its formation, our task force has met on numerous occasions. We even had a two day meeting modeled on a

congressional hearing in which we heard from key representatives of the Environmental Protection Agency (EPA), the Department of Energy (DoE), The American Lung Association, private firms involved in radon testing and mitigation work, and an investigative television reporter who helped initiate the testing of more than 100,000 homes in the Washington metropolitan area.

The purpose of this meeting was for NAHB to obtain a cross section of opinion on the many difficult issues posed by radon gas, and to discuss how the homebuilding industry should respond. After a considerable amount of deliberation, NAHB has formulated a response which is concise and direct.

We believe that radon is a manageable problem. We do not wish to become involved in prolonged public debates about the health effects of radon. NAHB builders simply want to build the best buildings we can so that the public can have safe, healthy, and affordable housing.

As the General Accounting Office (GAO) study points out, radon also presents many difficult issues that must be addressed by the federal housing agencies. However, while it must be remembered that even though the federal government may be in the position of deciding radon policies for its housing programs, the builders of this nation are the people who will actually have to

incorporate these policies into the nation's housing stock. NAHB's radon policy addresses many of the same key points raised by the General Accounting Office study. I, therefore, would like to offer NAHB's views as guidance to the federal housing agencies:

SITE TESTING: Current testing technology does not allow future indoor radon levels to be predicted from a site test. The cost of testing a site in some cases may be higher than the cost of reasonable preventative construction methods. Further research is needed to find cost-effective site testing techniques that can be correlated to future indoor radon levels when specific construction techniques are employed.

HOME TESTING: Much confusion exists regarding the meaning of short-term (3-7 days) home test results. Radon levels can fluctuate on a seasonal, daily, or even hourly basis. The Environmental Protection Agency's radon health risk estimates are based on annual average levels which cannot be ascertained from a short-term test. Such tests provide little useful information other than whether a longer-term test is warranted. In addition, the validity of a short-term measurement can be destroyed if someone simply leaves open a door or a window. In such situations, a home owner can be lulled into a false sense of security, thinking that there is no radon problem when in fact

one may exist.

Because of the unreliability of short-term test results, NAHB believes that the outcome of radon tests should not be included as a condition of sale in real estate transactions. An accurate indication of the radon level in a home is currently not obtainable within the amount of time that a new home sales transaction should reasonably be expected to occur. With a new home transaction, the delay required to obtain a meaningful radon measure may unreasonably raise the cost of the home for the consumer.

TECHNOLOGY: NAHB, in conjunction with the EPA, developed and distributed the publication "Radon Reduction in New Construction: An Interim Guide." This document, which represents the best available technology, will be updated as new radon prevention technologies are developed.

As an industry, NAHB has taken the initiative in developing construction technologies to prevent radon infiltration into new homes. Many of the studies regarding the effectiveness of specific prevention methods are not complete, including the largest one (100 homes) which is being conducted in New Jersey by NAHB's National Research Center in conjunction with EPA, the New Jersey Home Builders Association, and the state of New Jersey.

However, preliminary results indicate that radon infiltration in new construction can be significantly reduced in a cost-effective manner. Preliminary research results also indicate that relatively reliable methods exist for mitigating radon problems in existing homes.

Additional research is needed regarding both prevention and mitigation; most of it should be funded and conducted at the federal level and coordinated with the private sector to prevent the duplication and fragmentation of efforts that might result if research dollars are distributed to individual states. However, researchers at the national level must take into account regional differences in construction methods.

STANDARDS: There are two basic types of construction standards. Prescriptive standards outline specifications for techniques, materials, and equipment without requiring a specific result. For example, "Builders should use X inches of clean stone under the slab."

Performance-based standards require a specific result without outlining how it is to be achieved. For example, "Houses must have radon levels of no more than X picocuries per liter of air." Standards do not become mandatory until adopted into laws

or codes. National standard setting organizations are already considering the adoption of various standards to address radon.

NAHB supports the development through the consensus process of practical prescriptive construction techniques regarding radon, but does not support performance-based standards. NAHB believes that the development of cost-effective standards that address various radon issues, such as prevention techniques for new construction, mitigation techniques for existing homes, diagnostic procedures (determining the scope of a radon problem and recommending appropriate action), and testing methods and devices for both sites and homes is crucial. Standards are also needed for materials and equipment such as caulks, sealants, and fans.

BUILDING CODES: NAHB supports the adoption of non-mandatory (at the builder's discretion) prescriptive construction techniques by the model code organizations. Different areas of the country have different experiences with radon because of significant variations in soils, geology, construction types, and weather conditions, so decisions about codes should be addressed at the state and local level -- not at the federal level.

Building practices vary greatly nationwide. In Colorado, homebuilders must contend with expansive soils that affect the

types of foundations that may be utilized. In many parts of New Jersey, a greater concern for waterproofing has led builders to incorporate techniques that might be considered "excessive" in dryer areas. In very warm southern climates, most homes are built slab on grade and do not even have basements in which radon can accumulate -- we must then worry about indoor air quality in the primary living areas.

In conclusion, the federal government has a tremendous role to play in fostering additional research and serving as the central player in informing the American public regarding what they should do about radon.

NAHB believes that the federal government's involvement in research about radon is essential. Private industry cannot adequately investigate and fund all of the radon related scientific research projects. Research must continue in order to develop the most effective prevention and mitigation techniques possible.

The federal government should keep in mind that these techniques should be employed only where needed -- namely in those areas where there is a strong potential of radon being present. To simply prescribe that all housing must incorporate radon prevention techniques would unnecessarily add to the cost

of housing and further worsen the housing affordability problem.

All of the calculations quoted on the cost-effectiveness for radon prevention and mitigation systems seem to be based on the concept that the costs would be the same for all home buyers, and that is a false assumption. An additional $500 cost for radon prevention techniques in a very expensive home is not likely to price the typical luxury home buyer out of the market. However, the same $500 increase for similar features in a smaller residence built for low to moderate income buyers may prevent a family from buying the home.

I represent America's housing industry -- an industry that has acted responsibly in dealing with the fairly recently discovered threat of radon in residential homes.

NAHB, and the NAHB National Research Center in Upper Marlboro, Maryland have played a key role in developing radon mitigation and prevention techniques through EPA sponsored research. We have had a very productive relationship with EPA and DoE and we look forward to an even more fruitful relationship in the future.

Federal agencies which plan to develop policies on radon -- HUD, the Veterans Administration, the Farmers Home Adminis-

tration, the National Park Service, or whoever -- should work closely with private industry. We do not have all of the answers, but our industry represents those who will have to ultimately implement the solutions.

We have accepted the initial challenges that radon has presented to the housing industry. The challenge that remains is to ensure adequate funding to conduct additional research that will enable homebuilders to continue building safe, healthy, and affordable housing for all Americans.

On behalf of the NAHB, I thank you for this opportunity and I would be pleased to answer any questions you may have.

TESTIMONY OF

VANCE L. CLARK, ADMINISTRATOR

FARMERS HOME ADMINISTRATION

UNITED STATES DEPARTMENT OF AGRICULTURE

Before the

SUBCOMMITTEE ON SUPERFUND AND ENVIRONMENTAL OVERSIGHT

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

May 18, 1988

As you requested, Mr. Chairman, I am submitting for the record the Farmers Home Administration's views on the recent General Accounting Office report on "Indoor Radon: Limited Federal Response to Reduce Contamination in Housing."

The report found that the response to radon by Federal agencies involved in housing has been limited because of a lack of a clear mandate for those agencies to address the indoor radon problem. We at FmHA believe that a clear definition of responsibilities and direction for all Federal agencies involved in radon assessment, mitigation and prevention strategies would be helpful in developing a Federal response to the radon issue.

Although FmHA has no statute specifically requiring action with respect to radon, we are developing an indoor air pollution policy or guidance that would include radon. There are issues that make this development difficult, but we plan to be flexible enough to revise this policy guidance as our knowledge of radon and its dangers expands. FmHA will continue to use EPA's action guidelines, mitigation and prevention measures and current information in addressing the radon issues in our housing programs.

Answers to your specific questions follow:

RESPONSES TO QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

1. Does the FmHA favor adoption of a Federal radon standard?

We do not believe the adoption of a Federal radon standard is warranted. FmHA believes the EPA action guidelines and recommendations, along with current mitigation and prevention measures, provide appropriate Federal guidance. The completion of EPA's national assessment of radon and its ongoing research program should help in determining if a Federal radon standard is necessary for dealing with this naturally occurring health hazard given its uncertainty and localized nature.

2. Does the FmHA have the authority to address radon contamination problems in its programs?

FmHA does not have specific authority to address radon contamination problems in its programs. We are using the EPA action guidelines in development of guidance and direction for our field staff.

The goal of "decent, safe and sanitary living conditions" is set forth in the Housing Act of 1949 for FmHA's housing programs. Under this broad policy statement, FmHA is drafting an indoor air pollution policy and/or guidance that would include radon. If faced with a radon problem in a housing unit financed by FmHA, this same broad authority would be considered the basis for addressing the problem.

3. Does FmHA support enactment of a statutory mandate for it to address radon and if so, what should this mandate contain?

The Agency does not support a statutory mandate to address radon if it applies only to FmHA. The development of any statutory mandate should apply to all Federal agencies with housing programs.

The GAO report focused on the Federal response to reduce radon contamination in housing. Under FmHA's Community Facilities Program loans are made to build or improve public use facilities such as hospitals, health clinics, fire and police departments, community centers, libraries, schools, nursing homes and other essential community service installations. Therefore, before any statutory mandates are completed, it first must be determined how EPA's action guidelines should be addressed at these types of facilities.

4. What funding requests has the FmHA made to Congress for radon related activities?

FmHA has not requested any funding from Congress for radon related activities. FmHA recognizes the fact that Congress is providing financial resources to both EPA and DOE who have the mandate, technical and scientific capability and rightfully the responsibility for research and standard setting activities. FmHA looks to these agencies for technical guidance and does not wish to duplicate their efforts. However, adequate funding should accompany any statutory mandate for agencies involved in housing and/or community facilities to address radon.

Most loan authorities conferred on FmHA are intended to serve rural people and communities of greatest need who cannot get credit elsewhere at affordable terms. When a problem structure is identified, FmHA has adequate authority to fund repair and rehabilitation loans. However, if FmHA is required to provide radon testing, mitigation and prevention assistance from existing program funding, this would reduce the number of individuals and communities of greatest need that the Agency can serve.

5. When will the FmHA adopt a radon policy?

An indoor air pollution policy and/or guidance is being drafted and may be completed by late fiscal year 1988. It is anticipated that this policy and/or guidance will cover radon and other indoor air pollutants. Presently the Agency provides technical information and assistance on radon matters through training, quarterly informational mailings and upon request from individual States. Each State request is handled on a case-by-case basis. In the instructions for updating the FmHA State Natural Resource Management Guide, all FmHA state officials were asked to recognize radon hot spots within their state.

6. Why doesn't the FmHA require that housing constructed in radon prone areas (as identified either by EPA, the U.S. Geological Survey or the states) incorporate radon mitigation techniques before it will provide any federal assistance?

It is always more efficient to take mitigating actions before a structure is built rather than after it has been built and occupied. Therefore, it is important to have specific mitigation requirements associated with specific radon prone areas. To date, mapping of radon prone areas has been very general in nature, and mitigation techniques are being researched and refined. Because radon defies easy prediction, a home next door to one with a higher than normal radon level can be tested and found to be free of radon while a home across the street can have dangerously high radon levels. Much has been learned about radon in relatively short time. But there are a number of questions to be answered and research to be done.

FmHA believes that to establish requirements for mitigation of radon nationwide without adequate determination or justification is inappropriate and premature. Although completion is not expected until 1991, FmHA supports EPA's National Radon Assessment Program, which will identify those areas of the country with high radon levels, and other Federally funded radon research and mitigation efforts.

The GAO report focused on the Federal response to radon contamination in housing. Under FmHA's Community Facilities Program, loans are made to build or improve public use facilities. We do not yet know if the same EPA action guidelines being used for housing are appropriate for those facilities.

Office of the
Administrator
of Veterans Affairs

Washington DC 20420

Veterans
Administration

JUN 16 1988

Honorable Frank R. Lautenberg
Chairman, Superfund and
Environmental Oversight
Subcommittee
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This is in reply to your letter dated May 12, 1988, in which you request our views of the General Accounting Office report, Indoor Radon: Limited Federal Response to Reduce Contamination in Housing, and of the GAO's recommendations.

Ten copies of the Veterans Administration statement are enclosed. We will be pleased to answer any additional questions you may have on this matter.

Sincerely,

THOMAS K. TURNAGE
Administrator

Enclosures

The following are the Veterans Administration's views, in response to your request, of the GAO's report, Indoor Radon: Limited Federal Response to Reduce Contamination in Housing, and of the GAO's recommendations.

The GAO has correctly reported the VA's policy in dealing with radon. The report indicates that in addition to the absence of a direct statutory mandate to address radon, the VA's reasons for its policy are that the extent of the problem has not been determined, the EPA and other Federal agencies are assigned lead radon roles, and that any unrequired action might make the agency legally liable - unnecessarily - in a radon lawsuit. We are satisfied that the report presents the VA's position in a candid and succinct manner.

The GAO report did not contain any recommendations applicable to the VA.

It is appropriate to note that in the Congressional Record dated July 8, 1987, which reported the proceedings related to the passage of S.744, the Radon Program Development Act of 1987, Senator Moynihan speaking in support of the legislation reported out of the Committee on Environment and Public Works stated that he was troubled over information being disseminated indicating "... that all is easily fixable, when the truth is that some homes are easily fixed, while others can be no end of trouble." Senator Moynihan further stated that "[t]he need for prompt action is clear, but misleading and incomplete information helps no one." Our views coincide with those expressed by Senator Moynihan.

Radon contamination has been a concern of the VA for some time and our involvement has been confined to measures which clearly did not go beyond our statutory authority. Almost twenty years ago, when uranium mine tailings were used for various construction purposes in Grand Junction, Colorado, the VA allowed the use of vacant properties it acquired as the result of foreclosure actions for monitoring and testing purposes by the investigators who were gathering data on the radon contamination problem in that community. A provision of S.744 would require data on high radon levels in homes nearby Federal buildings to be included in lists of areas which are identified as exceeding an established target level. We look forward, if asked, to being able to cooperate in problem solving efforts again.

2.

You asked that we address some specific issues and questions. The items are restated with the responses immediately following.

1. Does the VA favor adoption of a Federal radon standard?

The VA favors adoption of a radon standard which will recommend action levels. We feel that recommended action levels would be beneficial. However, the homeowner should have the option to either act, based on the recommendation, or not to act in the matter of radon mitigation.

2. Does the VA have the authority to address radon contamination problems in its programs?

The VA does not have authority to address radon contamination problems in its programs. The Minimum Property Standards for existing property utilized by the VA are, for the most part, performance oriented. For proposed construction the local codes are generally used as standards. In matters such as air quality there should be prescriptive action levels or standards established, such as are in place for water quality, to prevent the possibility of inappropriate, capricious or arbitrary decisions regarding the acceptability of properties being made which may deny the use of benefits to eligible veterans.

3. Does the VA support enactment of a statutory mandate for it to address radon and if so, what should this mandate contain?

The VA does not support enactment of a statutory mandate for it to address radon. Radon matters should be addressed by state or local governments, which control occupancy and use permits for housing within their jurisdictions. The GAO report, Indoor Radon: Limited Federal Response to Reduce Contamination in Housing contains several valid observations. On page 13 a comment by EPA "...that a regulatory approach establishing radon standards for an acceptable risk level does not appear suitable to deal with a naturally occurring health hazard." and on page 39 an admission that "... tests ... were easily compromised by 'airing out' the house prior to the radon test." These observations indicate that deciding on a course of action will be difficult. A reasonable approach appears to

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be that homeowners should be educated or informed regarding radon mitigation measures.

4. What funding requests has the VA made to the Congress for radon related activities?

The VA has not requested any funding related to radon matters.

5. When will the VA adopt a radon policy?

As stated in the answer to your question 2, above, the VA does not have authority to address radon contamination problems in its programs. Our opening remarks in this statement provide comments on a GAO report which states that, in our view, radon mitigation matters should be addressed on State and local levels. An earlier GAO report, Air Pollution: Hazards of Indoor Radon Could Pose A National Health Problem, (GAO/RCED-86-170, June 1986) expressed the need for a unified, consistent, and well-coordinated approach to addressing indoor radon problems on the Federal level. The GAO report presently before us mentions that if Federal housing agencies respond differently to radon hazards there could be problems and the Federal response would be a fragmented one.

Presently, builders of new houses and sellers of existing houses must comply with local codes and ordinances. Builders' plans must meet building authority requirements before permits are granted and the completed structures must evidence compliance before certificates of occupancy are issued. Because many communities have mandatory programs for coding up, e.g., upgrading mechanical systems, installing smoke detectors, etc., existing houses must be made to comply with local requirements before title can be transferred.

6. Why doesn't the VA require that housing constructed in radon prone areas (as identified either by EPA, the U.S. Geological Survey or the states) incorporate radon mitigation techniques before it will provide any federal assistance?

Some state and local governments have taken action to address radon problems in their areas. For example, since 1975 the local building authority in Grand Junction, Colorado has

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required that sites be tested for radioactive soils. Permits are issued if test results are satisfactory to the building authority.

The EPA and some local government agencies have prepared information brochures and pamphlets on radon problems and suggested mitigation techniques. An informed purchaser may take the necessary steps to incorporate control measures into construction of a new house or remodel of an existing house. In the absence of legislation which clearly defines when radon mitigation action should be made a requirement, the VA has no authority to impose such a requirement or act in any manner which may deprive an eligible veteran of the loan guaranty benefit to which he or she is entitled by law.

There are some similarities between radon and another natural hazard which was addressed on the Federal level. The National Earthquake Hazards Reduction Program addresses a problem which, like radon, is natural. We strongly suggest that, like the earthquake hazards reduction program, consideration be given to encouraging local authorities to improve codes, construction standards and practices, and to carefully weigh the effects of any economic, financial, and budgetary considerations against planned or proposed actions.

As previously stated in our answer to your question 2, the VA does not have the authority to address radon contamination in its programs. Additionally, the Environmental Protection Agency's office of Radiation Programs expects that a national assessment and data analysis will be finished by fiscal year 1991. For the VA to require mitigation action as a general policy at this time would exceed our authority, and also be premature.

United States General Accounting Office

GAO

Report to the Honorable
Frank R. Lautenberg, U.S. Senate

April 1988

INDOOR RADON

Limited Federal Response to Reduce Contamination in Housing

GAO/RCED-88-103

Executive Summary

Purpose

Potentially hazardous levels of radon—a radioactive gas linked to lung cancer—have been discovered in houses throughout the United States. In 1987, the Environmental Protection Agency (EPA) reported that elevated radon levels may be present in one out of every eight houses in the United States.

In an April 1987 letter, Senator Frank R. Lautenberg expressed concern about the efforts of federal agencies to deal with radon contamination in American homes. In response to this concern, GAO

- identified the status of EPA's efforts to detect radon and develop methods to reduce radon contamination;
- identified actions taken by four federal agencies involved with civilian housing—the Department of Housing and Urban Development (HUD), the Farmers Home Administration (FmHA), the Veterans Administration (VA), and the National Park Service—to respond to potential radon hazards; and
- studied the potential for federal government liability regarding indoor radon hazards in federally insured or assisted housing.

Background

Radon is an invisible, radioactive gas produced by the decay of radium, itself a byproduct of decaying uranium. Radon occurs naturally in almost all soils and rocks. It can seep indoors through cracks, foundation openings, and other entry points, and accumulate to hazardous levels that can cause lung cancer. EPA has estimated that from about 5,000 to 20,000 lung cancer deaths a year in the United States may be attributable to radon.

The Superfund Amendments and Reauthorization Act of 1986 assigned EPA a number of specific radon responsibilities, including the responsibility to conduct and report to the Congress on a national radon assessment. Among other things, the act requires that EPA conduct research, in conjunction with HUD, on methods to assess the potential for radon contamination in new construction and design measures to avoid indoor air pollution. GAO found no other law that specifically addresses actions to be taken by HUD or the other agencies in response to the radon problem. However, other statutes have general requirements that provide protection against hazardous housing conditions.

Results in Brief

EPA has a number of major program efforts aimed at identifying and mitigating radon problems. One of its major radon identification efforts is a

planned national assessment, but it has encountered delays, and the assessment is still years from completion. EPA's initial tests of various mitigation techniques have demonstrated significant radon reductions, but the techniques still need to be tested in a larger number of houses.

HUD, FmHA, and VA, which finance and insure civilian housing, have radon activities ranging from responding to a few site-specific problems to not being involved with indoor radon issues at all. One of the primary reasons cited for limited involvement with radon is the lack of a specific legislative mandate for an agency radon program. Only the National Park Service, which provides housing to some of its employees, has a radon program or policy in place.

Courts have not addressed whether the federal government is required to compensate for or mitigate radon in housing when it acts as a seller, insurer, or landlord.

Principal Findings

EPA—Much Work Remains

EPA is responsible for identifying and developing techniques to mitigate indoor radon problems. It plans to acquire data on houses with elevated radon levels through a national assessment, but this assessment has been delayed and is not expected to be finished until fiscal year 1991. In the mitigation area, EPA estimates that mitigation techniques will need to be tested on at least 600 existing houses and 125 houses under construction. Through the end of fiscal year 1987, mitigation work on 80 of the 600 existing houses had been scheduled, and results, available for 70 of the 80 houses, showed significant radon reductions. In fiscal year 1988, EPA anticipates expanding this effort to houses under construction, as well as increasing the number of existing houses.

HUD's Radon Response Is Piecemeal

HUD has reacted to radon hazards in a limited, piecemeal manner. Currently, HUD requires that applicants of HUD-insured mortgages be notified of the potential for high radon levels in 3 areas: (1) Butte and Anaconda, Montana; (2) Edgemont, South Dakota; and (3) certain portions of Florida. However, such notification is not provided to mortgage applicants in other areas, such as Colorado, where a state survey of 900 houses indicated about 40 percent had elevated radon levels.

Similarly, radon reduction techniques will be incorporated during construction of a HUD-assisted public housing project in Bethlehem, Pennsylvania. However, such techniques may not necessarily be considered for other HUD-assisted new construction projects, as there is no HUD requirement or policy that radon reduction techniques be incorporated in new construction projects financed by HUD.

EPA and HUD are both required to conduct research for the purpose of developing methods for assessing the potential of radon contamination in new construction and design measures to avoid indoor air pollution. However, they have not reached an agreement on their respective roles. Instead, EPA is carrying out the lead role in responding to this requirement, and a HUD role remains unclear.

Other Agencies' Responses

FmHA and VA officials said their agencies are unaware of any radon problems in the housing their agencies finance or insure. FmHA is now formulating an air pollution policy that is expected to include radon. Consequently, it is unknown to what extent, or how, potential radon hazards will be addressed. FmHA officials said the radon part of the expected policy may be based on guidance that was provided to two FmHA state offices.

This planned FmHA action contrasts with the VA, which considers radon to be a state and local government issue and takes the position that the VA is not required to address potential radon problems in houses it insures. Consequently, the VA has no policy relating to insuring houses that may have hazardous radon levels.

The National Park Service has tested nearly 3,000 permanent housing units, as well as some seasonal housing and administrative buildings. As a result of testing, the Park Service plans to perform mitigation work on 352 buildings with elevated radon levels.

Federal Government's Potential Liability

Courts have not addressed whether the federal government is required to compensate for or mitigate radon in housing when it acts as a seller, insurer, or landlord. Under the Housing and Community Development Amendments of 1978, however, recent decisions of lower federal courts have required the government as landlord to correct or eliminate various aspects of habitability, such as water leakage and rat infestation. The courts' rationale is an implication, found in the 1978 Amendments, of a warranty of habitability in public housing leases.

HUD currently is defending a suit by public housing tenants for alleged exposure to asbestos. Whether the concept of implied warranty will be held under the 1978 Amendments to embrace asbestos or radon, at some undetermined threshold of exposure, is an issue that will not be resolved without litigation.

With regard to the liability of the federal government as seller or insurer, other cases suggest that, except in unusual circumstances, courts will not imply a warranty to assure that housing is free of hazardous levels of radon.

Recommendations

GAO recommends that the Secretary of HUD and the Administrator, EPA, define their respective responsibilities and planned actions in response to their shared legislative research mandate under the Superfund Amendments and Reauthorization Act of 1986. Other recommendations to the Administrator, EPA, appear in chapters 2 and 4, and to the Secretary of the Interior in chapter 4.

Matters for Consideration by the Congress

With the exception of the legislative research requirement HUD shares with EPA, HUD, the VA, and the FmHA do not have any specific statutory mandate to address indoor radon hazards, and these agencies have generally assumed a limited radon response. The Congress may wish to change this situation by specifying or outlining the expected radon responsibilities of these federal agencies. Responsibilities the Congress may wish to specify could include, for example, providing prospective applicants of federal housing assistance with general radon information through a disclosure notice. In considering such responsibilities, the Congress should be attentive to any implications the statutory language has regarding possible government liability to private parties.

Agency Comments

GAO discussed the report's contents with responsible agency officials, and they generally agreed with the information presented. Their comments have been included where appropriate. As requested, however, GAO did not obtain official agency comments on this report.

86-731 (164)